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## LECTURES.

### THE COMMUNICABLE FEVERS AND THEIR TREATMENT.<sup>1</sup>

A LECTURE DELIVERED AT BELLEVUE HOSPITAL, NEW YORK.

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#### II.

GENTLEMEN, — In others of these diseases beside diphtheria there are special indications. Thus in scarlatina and typhoid we are always to be on our guard against the occurrence of otitis. Just as soon as the patient complains of any pain in the ear, the best thing is to inject into it oil of peppermint, which, like that of winter-green, is a disinfectant. In typhoid there are two classes of cases in which the ear is usually affected. In the one, inflammation proceeds up from the throat into the internal ear, while in the other the ear trouble is simply a part of the desquamative process. In a case of typhoid I dislike very much to find diphtheria as a complication, since it is extremely likely to result in permanent deafness. I think I have warded this off in quite a number of instances, however, by the method of free irrigation of the throat, previously alluded to. In scarlatina, if the ear is affected early, we have external otitis, and external syringing will be found useful; but if the difficulty comes on later, it is the result of the spreading of the inflammatory process from the throat, and we have otitis media. Here it is better to use the method of irrigating the throat; and in severe cases of scarlatina, even where there is no otitis or diphtheria, I would strongly recommend its employment.

But we have other difficulties in scarlatina beside otitis, and prominent among them are delirium and convulsions. These you will find to be due to the high temperature present. Therefore, whenever I meet with any great increase in the body heat, I am in the habit of combating it immediately with cold-water applications. In scarlatina a high temperature is more dangerous than in any other affection with which I am acquainted. One hundred and six degrees almost always

<sup>1</sup> Reported for the JOURNAL.

prove fatal, one hundred and five are very bad, and even one hundred and four are dangerous. In children the cold-pack is the best means of refrigeration, and when delirium or convulsions occur, cold is especially to be applied to the head.

From the very beginning of an attack of scarlatina we should never neglect to use inunction of the whole body three times a day. This answers quite a number of purposes, and is particularly useful in relieving itching and restlessness, and consequently enables us to keep the patient much more quiet than we could otherwise do. The itching is always annoying, because in this disease there is such a general inflammation of the skin, and hence the application of the oil is very grateful. If it is quite severe, lime-water liniment had better be employed, as the alkali renders the inunction more soothing. Another end that this procedure fulfills is the warding off, to a considerable extent, of renal complication; and it is often of still further service in preventing glandular trouble, as well as those prolonged affections of the mucous membranes, such as conjunctivitis and ozena, which are often so miserable a feature of scarlatina. Glandular implication, indeed, is always secondary to difficulty about the throat, ear, or nose, and hence the best way to avoid it is to use faithful inunction in combination with throat irrigation.

Lastly, as to scarlatinal nephritis. In every case a prodigious amount of uric acid is given off by the kidneys. In the urine of a patient suffering from the disease, I have sometimes seen the test-tube one third filled with a cloudy deposit looking like mucus, but in reality made up of the crystals of uric acid. For some time past I have been in the habit of using the uric of colchicum in cases of scarlet fever accompanied by kidney complication, and I have found the treatment, which I believe is original with myself, of material benefit. The dose generally employed is about five drops.

A few words now in regard to typhoid fever. This is the longest of the fevers, and, being characterized by the most continued pyrexia, it differs from the others in the immense amount of heat ordinarily given off during its course. The high temperature is long-continued and steady, while in the others it is shorter or intermittent (as in malarial fever), and hence in it there is, as a rule, more burning up of the materials of the body. There being thus a greater waste of the vital forces, it is the most exhausting of all the fevers. Consequently, in typhoid one of the leading indications is to employ apyretics, and I am a strong advocate of the use of cold as well as quinine and other agents capable of reducing temperature in its treatment.

Along with such measures, proper alimentation must be kept up steadily from the beginning to the end of the attack; for there is great danger of the patient's giving out from pure starvation. The food must always be administered systematically, and it is absurd to commence your

treatment with stimulus, which should always be reserved until it is really needed. To do good, it should be given only when the critical period arrives. Stimulation is for a special time, and you do not order it to-day for an operation that is to be performed next week, for instance. It is imperatively necessary, however, that you should commence the feeding at once. The stomach is so weak that it is like that of an infant, and hence the only appropriate diet is milk, which it is better to dilute one half with lime-water. About a drachm of pepsin a day is also advisable, to assist its digestion, and bismuth is of service in preventing putrefactive changes in the intestines by its local action. It may, perhaps, be well to commence the treatment with a cathartic, but, beside the simple remedies just mentioned, I see no need for any further medication.

In typhus fever there is a greater tendency to cerebral trouble than in typhoid. Ice or other cold applications should therefore be early placed upon the head, and should be kept up as long as any headache persists. General inunction is more necessary in this disease than in typhoid, and is, indeed, scarcely less so than in scarlatina itself.

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### THREE CASES OF CEREBRAL MENINGITIS FROM DIFFERENT CAUSES.<sup>1</sup>

BY S. G. WEBBER, M. D.

Two of the following cases were observed at the City Hospital; the third was a private patient. Each case presents certain features of interest which will be noticed in their appropriate places.

CASE I. Daniel B., twenty-six years of age, had a chancre in October or November, 1877, and indurated non-suppurating buboes. In December he entered the City Hospital with pain in the back of his neck, extending up to the occiput and down to his shoulders, which was worst at night. Towards the end of January he had a sore throat with enlarged tonsils, and a scarlet rash on his chest, which disappeared in about twenty-four hours. January 31st. A papular eruption appeared on his body and legs; he was put upon protiodide of mercury, and about the middle of February was discharged. He was admitted again in August with pains and headache; he slept poorly, was very dull mentally. He was discharged August 29th. He entered again September 30th with weakness of the legs and consequent difficulty in walking. He denied having pain when asked a general question, but if asked whether he had pain in any particular locality he answered, "Yes." October 2d. The mental disturbance was greater; he could not articulate, yet he understood many things said to him. He had been up and wandered aimlessly about the ward the evening before, but could not at that time talk. He gave no indication of pain, excepting that he constantly carried his hand to his head, and repeatedly lay the palm of his hand across his forehead; but when asked if his head ached he shook it. The saliva ran from his mouth, and he reached frequently for the spit cup, held it as if to spit, but was unable to do so. Occasionally the breathing was stertorous. Cardiac sounds were normal. Respiratory sounds were rather masked by the sonorous breathing, but in quiet intervals no râles were heard; the expiratory sound was unnaturally prolonged at the right apex, and there was a de-

<sup>1</sup> Read before the Boston Society for Medical Observation.

cidedly higher pitch on percussion in that region. The pupils reacted to light. There was slight ptosis on the left, and the facial muscles moved less freely on that side. On being told to protrude his tongue, he opened his mouth, the tongue fell back, and he snored. The movements of the right arm and leg were less ready than of the left, though there was not actual paralysis. Reflex action was marked on both sides. The abdomen was sunken, and the *tâche cérébrale* was unusually well marked. Pulse was 96 in the morning, 120 in the afternoon; the temperature was up to 101° to 102° F. in the evening. He had ten grains of iodide of potassium four times a day. The next day he could not swallow and had to be fed by the rectum. He received ergot. Four days later, October 7th, he had Cheyne-Stokes respiration. The ergot was omitted. Three days later, October 10th, there was some improvement, and he began to notice what was going on about him. October 16th. The abdomen was less retracted; the *tâche cérébrale* less marked; swallowing was less difficult; he obeyed orders; could get on the close chair with help. October 28th. He was just beginning to articulate a few simple words, but it was difficult to understand what he wished to say.

From this date he steadily improved. Temperature from one half to one degree below normal, excepting on November 9th and 26th. At the first of these dates he sat up three hours the previous afternoon, and on the 26th he sat up half an hour. After this, sitting up and even walking had no special influence upon the temperature.

He did not gain the power of articulating distinctly, but I was told that he was cheerful and afforded amusement to those in the ward by his mimicry of actions. He certainly understood all that I said to him, and volunteered some short remarks. The saliva ran from his mouth, he seeming to have no control over it; this and a certain silly look about the eyes would lead me to suspect impaired intelligence, though it is possible that there was merely lack of power to express himself. The physical signs referable to the lungs were the same when he left the hospital as at the previous examination.

When I first saw this patient, the whole of his previous history was not known; the diagnosis of tubercular meningitis was made. The disease was evidently cerebral, and the history, so far as obtained, did not show a sudden attack. Considering that there was general weakness rather than true paralysis, that at least some of the nerves at the base of the brain were affected, that there was probably some distress in the head, if not actual headache, these symptoms, together with the condition of the right lung, the high pulse, and the high temperature, seemed to justify the diagnosis.

The history of syphilis, however, gives a different aspect to the case. He had had pain in his neck and back of his head nearly a year previously, which was relieved under anti-syphilitic treatment. Six or seven months later he had the same pain again, with dullness of mind and stupidity, and these symptoms had persisted with greater or less intensity until his admission the last time. Then the more severe symptoms appeared which showed that from some cause there was meningitis. The approximate recovery caused me to doubt my diagnosis of tubercular meningitis. It is true that some authors maintain that this may end in recovery, but the cases of recovery from tubercular meningitis are so very rare that the probability is great that in any given case of recovery there were no tubercles.

Recovery, however, from syphilitic affections of the cerebral meninges is by no means unknown, and in view of the result it seems much more probable that this is the correct diagnosis.



There are a few points worth noticing. The syphilis seems to have been contracted in October or November, 1877. In the latter part of December, about two months later, the pain in the neck and occiput appeared, and the last of January an eruption. Seven months later there was headache and mental impairment, and one month later the severer symptoms occurred. This is an unusually early date for such symptoms to show themselves. After the 11th of October, and after the exacerbation on the 26th of November, the temperature was too low to warrant the view that there was active pulmonary disease.

CASE II. Simon P., thought to be about thirty years old, had been out of work for a considerable time and rather desponding, sometimes taciturn; these symptoms had gradually increased in intensity. He had had attacks of dizziness, which lasted a considerable length of time; once he fell in the street, and was carried home. After recovery he denied having had syphilis.

He entered the hospital November 20th. He could give no connected account of himself; declared he was blind, but could count fingers half-way across the ward; at other times he said he was deaf, and answered questions readily. Seemed to have no power to tell anything about himself; said he was starved, again that he was paralyzed; wished he was dead, because he could not get work. If told he was dead, he acknowledged the truth of the proposition.

On examination, nothing abnormal was found in heart or lungs; abdomen not tender, not sunken, not abnormally tympanitic; no *tâche cérébrale*, no rose spots. The exertion necessary for this examination seemed to exhaust him, and he pretended to fall asleep, or rather perhaps he lay quiet, with eyes closed, not having the energy to make any further exertion.

Thinking that most of the above symptoms might be due to imperfect nutrition and mental worry, no medicine was given; he received only milk, soups, or beef tea every two hours. Three days later he had hallucinations; imagined he was on board ship; in the evening he became wild and noisy, and had to be removed to a separate room. About this time there was gurgling in the right iliac region. Three days later, November 26th, he had frequent attacks in which he was violent and had spasms. In one which occurred during the visit his face became red, and he remonstrated with imaginary persons, asked to be let alone when no one was touching him, tried to rise; after half a minute he lay down, and the face became paler than normal. During the attack, while his face was red, the head was drawn back, and there was a tendency to opisthotonos. His legs trembled for some time afterwards. Such attacks occurred every fifteen minutes or so.

About this time it was noticed that his tongue lay generally on the left, but he could move it to the right. The left side of the face twitched with slight spasms while the right did not. Between the attacks the pupils were normal in size and reacted to light. He recognized no one, not even his wife. He slept scarcely any. Iodide of potassium was given in five-grain doses three times a day, and three days later this was increased to ten-grain doses four times a day. At this latter date the *tâche cérébrale* was very well marked, and several rose spots were noticed on the abdomen. The tongue was dry, brown, and slightly cracked. The delirium continued, but gradually changed to a stupor. There was a soft blowing sound audible over the heart. Respiration was almost diaphragmatic.

December 10th. He began to recognize persons and take an interest in what was going on around him, but more or less delirium was noticed at times for nearly four weeks longer. After entire recovery a careful examination of the chest showed no signs of tubercular disease. The temperature was less regular in its rise and fall than is usually seen in typhoid fever.

This patient had for several weeks or even months shown considerable anxiety and mental disturbance from being out of work. It was learned subsequently that he had drank hard, which was suspected on his

entrance from his general appearance. Had he been very sick during all these weeks it is scarcely likely that he would have remained out of the hospital so long. It is, then, reasonable to believe that only a short time before admission he became worse. There is no record of this, but my impression is that it was so. Many of the symptoms are such as are found in typhoid fever; if that set in, in a patient thus troubled mentally, it is not strange that severe mental symptoms should be developed during the fever. But did a simple meningitis occur? The irregular temperature would be thus explained. Acute meningitis was found by Hoffmann four times in two hundred and fifty autopsies in typhoid patients. Possibly there was such a complication in this case.

Meningitis and typhoid with cerebral symptoms very closely resemble each other. Trousseau states that rose spots do not occur in meningitis.

The *tâche cérébrale* may be found in typhoid, but less distinctly marked than in meningitis. Trousseau considered Cheyne-Stokes respiration to be characteristic of meningitis.

The *tâche cérébrale*, or rather a red line following the drawing of the finger nail lightly over the skin, is seen in many persons where there is no cerebral lesion. Experiments made on patients with various diseases show that it is rather more frequently seen than not if the finger is drawn across the skin with sufficient pressure. To be of value as an aid in diagnosis, the red line must appear very quickly after a light impression, and be very red and very persistent. Partly in contrast with the deep red, partly, perhaps, owing to contraction of the vessels between the lines, if several lines are drawn, the skin between looks paler than the rest of the body.

CASE III. T. E. L., aged forty, was sent to me by Dr. H. I. Bowditch, October, 1872. He had taught school about twenty years. The previous spring, catching his heel, he fell forward down-stairs about nine steps, hitting his mouth and cheek on a post, and then fell full length on the floor. He had no unpleasant symptoms following this until the first of July. Then, while riding in an open wagon without springs, when the horse trotted he had a pricking sensation the whole length of his spine; when the horse walked he did not feel this. On the 4th of July, a hot day, he hurried in getting a carriage ready; he afterwards had a headache, and went to bed; no nausea then. Frequently afterwards, if he went into the sun, he had headache. This tendency rather increased, and the headaches became more severe.

When he began to teach again in September he had less than his usual vigor; noise and confusion troubled him very much. About two weeks previous to his visit he began to have nausea in the morning, and at times vomited, latterly every morning, from two to six times, always before breakfast. With the nausea there began motor disturbance; he walked a little unsteady, as if slightly intoxicated, was disinclined to move, and felt sleepy. No pain, no abnormal sensations, no anæsthesia in limbs. There was an uncomfortable feeling across the upper part of the neck, especially if the head dropped forward. The pain was more in the back of the head than the forehead, though frequently a sharp pain was felt in front. He slept well till about two A. M., then woke up, and was kept awake by the nausea. He had no special cause for anxiety nor for worry.

There was no motor paralysis, either in face or limbs, and sensation was normal. There was no change in the retina. He seemed very much exhausted and tired, which was thought to be due to the fact that he came towards the close of the day and had been delayed. He was told to rest; a small blister to back of the neck and soothing medicine were given.

Three days later, October 26th, I was called to see him. He had ridden home standing on the outside of a horse-car, and on reaching home was completely exhausted. I found him in bed, very restless, hands cold, head hot, with his hands on his forehead and over his eyes; pulse 54. He was incoherent, did not recognize me, would not or could not answer questions, opened his eyes when spoken to, then shut them; the pupils reacted only slightly to light.

The next day he was more rational, less restless, had no vomiting; the pupils were very sensitive to light. His bowels were obstinately constipated. On the 30th he had considerable delirium. His breathing was noted as peculiar, — a few short breaths, then longer ones, until a long, sighing inspiration, then short and rapid respiration again. This style of respiration continued for a day or so. The delirium and loss of intelligence became more decided; there was difficulty in swallowing, but no nausea. The bowels were only moved with difficulty; the urine was passed freely in the bed. The Cheyne-Stokes respiration reappeared. On November 2d there was a return of consciousness, and he took food without difficulty; the tongue was cleaning. He told me about himself intelligently. This apparent improvement was only of short duration, and he died on the night of November 5th.

This was clearly a case of cerebral meningitis, probably not tubercular. According to the history given by the patient himself when all his faculties were still unimpaired, the fall may have caused slight disturbance, but of itself does not seem to have been the chief factor in giving rise to the subsequent lesions. The overheating — a light sun-stroke — in July was followed by immediate symptoms, which did not entirely cease until his final illness. He was conscious that noise and confusion disturbed him more than usual; slight exposure to the sun gave rise to headaches, as had not been the case previously, and this tendency increased as time went by.

As to this cause, Huguénin,<sup>1</sup> in describing the symptoms in meningitis caused by exposure to the sun, says that the disease begins "acutely, with a rapid rise in temperature, and often chills." The cases he reports had such a beginning. I believe, however, that insolation may give rise to more chronic processes, which may be revealed merely by persistent headache, perhaps only by a sense of weight over the head, or by inability for steady mental application, these symptoms, as a rule, gradually disappearing; but if other unfavorable causes combine a meningitis may arise subsequently, of which the commencement is concealed, or at least obscured, by the previous chronic condition.

The return of intelligence just before death is deserving of notice. The improvement was such as to give the family great encouragement that he would recover. I cannot say this is usually the case, but have frequently seen it, and it is necessary to be on the guard, and not be deceived by it.

The temperature was irregular, and showed a marked remission in the fever. There was no harmony between the temperature and the pulse. In tubercular meningitis this irregularity of temperature is the rule. In simple meningitis it is said to be more regular. Wunderlich says that, deciding from not very numerous cases, the rise soon becomes

<sup>1</sup> Ziemssen, xii., page 638.

considerable, and is maintained continuously. Huguénin makes a similar statement for meningitis of the convexity, but under simple basilar meningitis acknowledges a group of cases in which no law governing the movements of temperature can be discovered. In truth, comparatively little seems to be known as to the course of temperature in simple meningitis; that it is sometimes very irregular is admitted. In the three cases under consideration it was irregular. The first case was chronic, and being probably syphilitic approaches very nearly to tubercular. (Tubercles cannot be absolutely excluded.) The second case seems to have been really typhoid fever; the meningitis, however, influenced the course of the temperature. The third case, as already said, was probably non-tubercular, but was more chronic than most cases of simple meningitis, and was undoubtedly the result of the sun-stroke.

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### ANATOMICAL EVIDENCES OF ABORTION.<sup>1</sup>

BY MEDICAL EXAMINER C. C. TOWER, M. D.

WHEN abortion occurs during the first two or three months of pregnancy, — which period corresponds to that of the greatest development of the decidua, — the embryo and its investing membranes are usually cast off entire. When such is the case, the extremities of the gland ducts, described by Friedländer as existing in the deeper layer of the decidua, may, according to Playfair, “be observed by a lens on the external or uterine surface” of that membrane “occupying the summit of minute projections separated from each other by depressions.” This statement proves, if anything, that the deeper layer of the decidua — the germinal layer, which has been described as forming the new membrane after normal delivery — is expelled, and that the lining of the uterine cavity must be devoid of mucous membrane. The following quotation from Leishman shows that there is high obstetric authority for the belief that this membrane is separated not only during abortion, but during menstruation also: “Dr. Tyler Smith states that, having had several opportunities of examining the uteri of women who had died during menstruation, he found that the appearances presented were similar to those which are observed after abortion. ‘*In each of these cases,*’ he says, ‘*I found the mucous membrane of the body of the uterus either in a state of dissolution or entirely wanting.*’” Our inability to accept this statement, so far as it applies to normal menstruation, may also shake our faith in its accuracy when applied to abortion. If he meant to say that the epithelial layer of the mucous membrane in either case was wanting, it would correspond with what is now generally accepted concerning the phenomena of menstruation, and, by

<sup>1</sup> Continued from page 301.

analogy, with what we might expect in effluxion. Dr. Priestley, however, is entirely at variance with Dr. Tyler Smith here, as will appear from the following quotation: "In cases where dysmenorrhœal casts and *early ova* are expelled from the uterus, the conversion of the mucous membrane into decidual structures is probably less complete, and the deep stratum remains behind to prevent the denudation of the muscular coat." That the mucous membrane of the uterus *is* sometimes shed in abortion is conclusively shown by case No. XXIII. of Professor Dalton's recent Report on the Corpus Luteum, which will be introduced further on. In view of the testimony here adduced we must conclude that the presence or absence of a mucous membrane in the uterus may or may not characterize an abortion; that while its absence might be regarded as presumptive evidence in favor of that occurrence, its presence should not be interpreted as proof to the contrary.

Changes in the substance of the womb dependent upon functional development of the organ will of necessity vary with the stage of pregnancy at which abortion occurs and upon the amount of subsequent contraction. The uterus of the nulliparous woman gives the following average measurements:—

Length externally . . . . .	7½ centimetres.
Breadth . . . . .	4½ centimetres.
Thickness . . . . .	2½ centimetres.
Thickness of walls . . . . .	10 to 15 millimetres.
Thickness of mucous membrane . . . . .	2 to 3 millimetres.
During menstruation . . . . .	6 to 8 millimetres.

The body and neck are of equal length. The color of the mucous membrane of the body is grayish-red or pinkish, that of the cervix pale. The latter often presents an arborescent appearance, which is sometimes also seen in the former, and due to the peculiar arrangement of minute blood-vessels. The shape of the uterine cavity on transverse section is triangular, its anterior and posterior walls being in close apposition. The cervical cavity is spindle-shaped. The weight of the whole organ, divested of surrounding tissues, is about thirty-two grammes.

In women who have borne children the size of the uterus is permanently increased, and its weight is nearly one fourth greater, the average being about thirty-eight grammes. The cavity is also larger and its contour more rounded. The length of the body is now slightly in excess of that of the cervix. The well-known changes in the neck and external os due to previous pregnancy need only to be mentioned. There is also a permanent enlargement of the blood-vessels in the multiparous organ.

Shortly after delivery at term the uterus measures in length from twenty to thirty-centimetres, and in width from ten to fifteen centimetres. Its parietes on section are from two to three and a half centimetres in thickness, and its weight is given at about seven hundred and fifty

grammes. In an interesting case of criminal abortion, recently reported by Dr. W. J. Chenoweth,<sup>1</sup> in which the examination was made eighteen hours after death, the length of the uterine sac was about twenty centimetres, the width thirteen centimetres, and the thickness of the walls five or six millimetres. Probably in this case contraction of the organ was prevented by an extensive laceration which was found in the uterine wall. Pregnancy had advanced from five to six months. The weight of the womb was not given. Probably at the middle period of pregnancy the weight would fall between three hundred and five hundred grammes, and its length measure from ten to twenty centimetres.

Changes in the structure of the womb accompanying utero-gestation affect all the tissues, — peritoneal, muscular, and mucous, the arterial and venous system of vessels, and the glandular system. All become enormously hypertrophied. These changes are most noticeable in the muscular and venous structures, the round nucleated fibre cells of the former being transformed into fusiform cells of great length and size, their nuclei being also greatly enlarged, and the latter forming the uterine sinuses. During normal involution these tissues diminish by fatty degeneration, compression, and absorption, the disintegrated material being also largely excreted in the form of lochia. Whether during the diminution of the organ which takes place after abortion similar changes occur I am not positively informed, but such is probably the case. The tissue changes which attend evolution of the womb could scarcely be mistaken for any form or degree of abnormal development of the unimpregnated organ, and consequently should be classed among the evidences of abortion.

The importance of the existence of a corpus luteum as a sign of recent pregnancy is so great, in legal medicine, that a somewhat detailed description, borrowed from latest authorities, is reserved for this place. When menstruation is still going on, or is just accomplished, we should expect to find the cavity of the ruptured Graafian follicle filled with fluid blood (according to M. Coste with a bloody fluid), or with a recent bloody coagulum of a "deep opaque red color," and slightly adherent to the surrounding wall, which is smooth and "of an indefinite semi-transparent rosy color." This bloody mass, which is variously designated *corpus sanguineum* and *corpus hæmorrhagicum*, is a pretty constant sign of recent ovulation. "The corpora hæmorrhagica," says Orth, "are of the size of cherries, and appear as dark, or brownish-red, soft masses, according to their age." After the lapse of one or two weeks, whether pregnancy does or does not exist, we shall find, instead of the appearances just described, a similar ruptured follicle, containing a central reddish clot surrounded by a pale-yellowish convoluted wall. This yellowish body is called a *corpus luteum*, and is merely a

<sup>1</sup> Cincinnati Lancet and Reporter, May 10, 1879.



transformed corpus sanguineum. "The recent corpus luteum," Orth further states, "is somewhat smaller (the size of a hazel-nut to that of a cherry stone); it has a yellowish border, one or two millimetres in width, which is usually somewhat zigzag (convoluted), and a brown or grayish-brown interior."

The process by which a "ruptured and bloody Graafian follicle" is transformed into a corpus luteum consists, according to Professor Dalton, "in a thickening and folding of the wall of the follicle, with the subsequent development of a yellow color in its substance, and in the condensation, shrinkage, and gradual decolorization of the contained clot." "The more recent the date of the menstrual flow the fresher is the clot in the cavity of a ruptured Graafian follicle, and the less change has taken place in its surrounding wall. A few days later the wall begins to be enlarged and thickened; and this enlargement, within a confined space, causes it to become folded upon itself in short, zigzag reduplications, mainly at the deeper part of the follicle. As the process goes on, the entire wall participates in the hypertrophy. Its convolutions are extended and multiplied, often in a very complicated manner. They project into the cavity of the follicle, encroach upon the central clot, and become pressed against each other, forming by their coalescence a thickened, glandular-looking envelope. Previously to the rupture of a Graafian follicle its wall is a uniformly smooth, vascular membrane, not more than one fourth of a millimetre in thickness. After the rupture, its thickness increases to one half a millimetre; but as the foldings above described grow in number and in depth, and crowd against each other laterally, the apparent thickness of the envelope thus formed becomes much greater, and may reach three or even four millimetres, especially at the deepest part of the follicle."

"In this way there is produced, during the intermenstrual period, a *corpus luteum*, occupying the substance of the ovary immediately beneath the superficial cicatrix which marks the site of the ruptured follicle." "At this time," which probably corresponds to about the twentieth day after the last menstrual flow, "the central clot is red and gelatinous, while the convoluted wall is of a light, rosy hue, mixed with more or less of a yellowish tint." "Subsequently," in the unimpregnated condition of the womb, "the whole structure diminishes in size, and the convoluted wall assumes a more decided yellow," so that when the month has expired, and another Graafian follicle has ruptured, and a new corpus sanguineum is formed, it has already entered upon its retrograde course. The corpus luteum of menstruation, therefore, having arrived at its highest development about the end of the third week of its existence, henceforth, by a process of atrophy and degeneration, gradually diminishes in size and weight, loses its distinctive characters, and gives place to fresh formations with each recurrence of the menses.

At the end of the fourth month it has entirely disappeared. On examination of the ovaries of a healthy woman, towards the close of an intermenstrual period, we should expect to find in one or both of them corpora lutea in various stages of growth and decline: that dependent upon the last menstruation being nearly or quite complete in its development; that corresponding to the next previous menstrual flow being in a retrograde condition; and a third, which represents the remains of a ruptured follicle still a month further back, being in an obsolete state and almost entirely absorbed, so that in a few weeks more no trace of its existence could be discovered. If the examination of the ovaries be carefully conducted, we should further observe that "a number of Graafian follicles approaching maturity are also visible at the same time, one of them being almost always perceptibly larger and more prominent than the rest."

The changes in size and weight which take place in an ordinary corpus luteum during the several stages of its physiological growth and decay can be best illustrated by reference to actual measurements carefully made by Professor Dalton and recorded in his latest paper. I take the liberty of tabulating for my present purpose the following results:—

CORPUS LUTEUM OF MENSTRUATION.

Age.	Stage of Development.	Weight in Milligrammes.	Diameter Measurement in Millimetres.			Volume in Cubic Centimetres.
			Width.	Depth.	Thickness.	
2 days.	Initial.	380	15	10	Not given.	0.4
10 days.	Crescent.	810	14	13	Not given.	0.7
20 days.	Maximum.	1200	13	14	9.5	1.1
6 weeks.	Retrograde.	90	8	5	Not given.	0.1
10 weeks.	Obsolete.	20	6	2	Not given.	Not given.

Although the corpus luteum of pregnancy, during the first month, differs in no essential respect from the corpus luteum of menstruation, yet, as we have seen, the latter has already commenced its retrograde course when ovulation is again accomplished, and a fresh corpus hæmorrhagicum is formed. In pregnancy, however, ovulation being suspended, the corpus luteum pursues an entirely different course of development and retrocession. "After the first month," according to Professor Dalton's latest declaration, "it continues to increase in size, or at least does not diminish; and its convoluted wall assumes the strong, yellow hue which has given rise to its name. At the same time, the central clot becomes fully decolorized without losing greatly in substance, growing denser and firmer, in proportion as it diminishes in bulk. Consequently the corpus luteum, by the end of the second month, appears as a voluminous yellow envelope, surrounding a white, tolerably firm,

fibrinous coagulum. . . . The whole forms a flattened, roundish, or ovoidal mass, of sufficient consistency to be felt as a well-defined tumor in the substance of the ovary."

"Beyond a certain period of pregnancy, the date of which is not precisely known, the corpus luteum diminishes in size, and loses the freshness of its yellow hue. It still retains the characteristic features of its original structure, and the connection of its central clot with the surface of the ovary continues visible throughout. At the same time its different parts become more closely adherent to each other, and the central clot often assumes the appearance of a whitish, radiating, or star-shaped, cicatrix-like mass. At the end of pregnancy the corpus luteum is reduced in volume to about one half of a cubic centimetre, and in weight to about five hundred milligrammes."

"The appearance of the ovaries is further modified during pregnancy by the disappearance of the earlier corpora lutea and the inactivity of the Graafian follicles." . . . "When gestation, therefore, has advanced to its middle or later periods, there is but one corpus luteum to be found in the ovaries. Those of a previous date have by this time disappeared, and no subsequent production of them has taken place."

The above copious quotations from the recent Report on the Corpus Luteum, by J. C. Dalton, M. D., present the most important of the diagnostic characters of this peculiar structure. Deviations from the appearances here detailed, however, sometimes occur, and as some of them have a bearing on matters of medical jurisprudence they will be briefly alluded to in the author's words:—

"One of the variations in the structure of the corpus luteum at this time 'during pregnancy' is due to the presence or absence of a central cavity in the fibrinous clot. As a general rule the clot is continuous and of uniform solidity throughout. But sometimes there is, in its central part, a well-defined cavity or excavation, with smooth walls, and similar in form to the clot itself." It has occurred, according to Professor Dalton's estimate, in about one third the whole number of published cases. "It seems to be due to a special retention of serum during the absorption of the clot. . . . It is not very plain why the same thing should not happen in the corpus luteum of menstruation, but, in point of fact, it does so very rarely. I have never seen such a cavity in the corpus luteum of menstruating women, and know of but one recorded instance of that kind."

A formation in the ovary which, although not a sequence of impregnation, may give rise to doubt as to its true character, unless clearly understood, is what is termed "saccular degeneration of the Graafian follicle." "This degeneration consists in a collapse of the follicle from reabsorption of its contents, together with slight thickening and condensation of its membranous wall. By this process the follicle loses its

normal physiological character, and passes into a condition of permanent inactivity. . . . The healthy Graafian follicle is globular in form, and consists of a thin, flexible, vascular, nearly transparent membranous wall, enclosing a clear, colorless fluid. When undergoing the sacular degeneration, its wall becomes thickened, opaque, whitish, and somewhat rigid, as if assuming a slightly cartilaginous consistency. The follicle is also a little puckered; and as its fluid contents disappear it becomes collapsed, so that its opposite surfaces are in contact with each other. It is still distinct from the adjacent ovarian tissue, and may be readily enucleated by the forceps, as in the healthy condition."

"In some cases the thickening of the follicular wall increases to 1.5 or two millimetres, and the degenerated follicle then presents an appearance of unusual solidity." "In size the degenerated follicles usually measure from three to five millimetres. Sometimes," as in a case mentioned by the author, "their longest diameter may reach eight millimetres." In the case alluded to, the wall of the follicle was "of a dead-white color, firm, and nearly homogeneous in texture, not distinctly convoluted, but enclosing an empty cavity with irregular, zigzag outlines. Its volume was 0.15 cubic centimetre, and its weight seventy-seven milligrammes."

"Such a formation as this is the only structure which deserves the name of a 'false corpus luteum.' It could hardly be mistaken, however, for a genuine corpus luteum except on very superficial examination. The most obvious distinction between the two is as follows: The real corpus luteum is superficial in situation. It is formed from a ruptured Graafian follicle, and its central cavity, with the contained clot, is always connected with a cicatrix on the surface of the ovary. The 'false corpus luteum,' on the other hand, is a Graafian follicle which has never ruptured. It is often deeply seated in the substance of the ovary, and it is not connected with any external cicatrix. The white color of its puckered wall and the absence of any clot or residuum in its central cavity are additional marks which serve to fix its character."

Other irregularities in the appearance of the corpus luteum which are sometimes met with, and with which the medical examiner should be familiar, are in some instances due to causes connected with the establishment or cessation of the function of menstruation, and in others to morbid changes which have taken place in the Graafian follicles. They need only be barely mentioned here. For a study of them the reader is referred to works on the subject, and especially to Professor Dalton's published reports. They appear, however, to be associated with abnormalities of menstruation, and to be mostly, if not wholly, independent of pregnancy. Thus, "menstruation may take place without the rupture of Graafian follicles or the formation of corpora lutea;" a corpus luteum may be formed "without the central clot;" "hæmorrhage" may

take place "into a Graafian follicle or the ovarian tissue without the formation of corpora lutea;" "blackish discoloration in and around old corpora lutea" may occur, and "gelatinous and fibrinous exudations into the cavity of Graafian follicles" may be sometimes found. These morbid exudations occasionally occupy as much as half the space of the entire ovary. Concerning the blackish discoloration, it is important to know that it is seen only in retrograde corpora lutea of menstruation. For, says Professor Dalton, "in most instances, as the corpus luteum passes into a retrograde condition the central clot becomes semi-transparent and of a lighter red color, afterward of a mottled greenish or slightly brownish hue, and at last is completely decolorized. The blackish tint in question shows itself only in very old corpora lutea, which have become much reduced in size, and shriveled or compressed."

Although Professor Dalton, with his characteristic carefulness of statement, does not in his paper inform us at what period of pregnancy the corpus luteum arrives at its highest stage of development, — a point of considerable importance to the medical jurist, — yet we are not without some information on this matter. On reference to his work on Human Physiology, we find that in comparing the corpus luteum of pregnancy with that of menstruation he gives the size of the former at two months to be seven eighths of an inch (twenty-two millimetres) in diameter, and at six months "still as large as at end of second month." Later observations, however, may have changed his opinion in this particular. M. Coste, who has had rare opportunities for studying this subject, is quoted by Professor Austin Flint, Jr., in his *Physiology of Man*, as saying: —

"I have followed with the greatest care, in the pregnant female, all the phases of this retrocession 'of the corpus luteum' of pregnancy. This commences to be really appreciable toward the end of the third month. During the fourth month the corpus luteum diminishes by nearly a third, and toward the end of the fifth, it is ordinarily reduced one half. . . . Nevertheless, there is nothing absolute in the retrograde progress of this phenomenon. I have seen women dead at the sixth and even the eighth month of pregnancy, present corpora lutea as voluminous as others at the fourth month."

The inference from these references is that during the third, fourth, and fifth months of pregnancy the corpus luteum is in a high state of development. As abortions, especially criminal abortions, are most likely to occur during these months, any evidence which can be derived from the existence of a corpus luteum will then be of its greatest value, because less liable to be misinterpreted.

(To be concluded.)

## RECENT PROGRESS IN ANATOMY.

BY THOMAS DWIGHT, M. D.

*The Division of Cartilage Cells and Some New Forms.* — Some decidedly new views concerning the division of cartilage cells, advanced by Bütschli,<sup>1</sup> induced Dr. W. S. Bigelow<sup>2</sup> to undertake an extensive series of investigations. Bütschli denied the universally accepted doctrine that the nucleus is the first and the cell-body the last to subdivide, and asserted that the division was simultaneous. He admitted the existence of cells with two nuclei, but failed to find reason to believe that this condition was a step toward subdivision. Dr. Bigelow describes and figures a number of appearances, which we agree with him in thinking represent successive stages of division, and which seem to strengthen the old theory in opposition to Bütschli's views.

Dr. Bigelow, moreover, calls attention to certain cells in the cartilaginous sclerotic of the frog which have not been described, though similar ones have been observed in fishes. They are much larger than ordinary cartilage cells, and of very fantastic shapes. They often contain two nuclei. There is more ground substance than usual around them, and this sometimes shows concentric stripes, and is stained by gold chloride. The neighboring cells occasionally present a radiating arrangement around them.

*The Structure of the Medullated Nerve Fibre.* — Ten years ago this was one of the few questions concerning which the histological mind was at rest. All accepted the axis-cylinder, the white substance or medulla surrounding it, and the sheath of Schwann inclosing the whole. The first disturber of the peace was Ranvier, who, in 1871-72, described his "*étranglements annulaires*," which were a series of constrictions interrupting the medulla. But one nucleus in the sheath of Schwann was found between each two constrictions. Some years later Lautermann described another kind of interruption of the white substance, which appeared to consist of a number of irregular pieces fitted into one another like pieces of stove-pipe. A good deal of discussion has arisen concerning these perplexing discoveries. The latest writer is Bernard Rawitz,<sup>3</sup> who has studied the nerves in the lung of the curarized frog, and then has treated and maltreated nerves in nearly every conceivable way. His conclusions seem to us very judicious. We are glad to find him insisting on the significance of the double outline. It does not exist in perfectly fresh nerves in which the axis-cylinder and the medulla appear as one. When it appears it represents the whole of the medulla; that is to say, the axis-cylinder takes up all

<sup>1</sup> Zeitschrift für wissenschaftliche Zoologie, Bd. xxix.

<sup>2</sup> Archiv für mikroskopische Anatomie, Bd. xvi. Heft 3.

<sup>3</sup> Archiv für Anatomie und Entwicklungsgeschichte, 1879, Heft 1 and 2.



the space between the inner lines. The appearances described by Lautermann are due to decomposition. Ranvier's constrictions, however, are true structures. They are formed by rings surrounding the axis-cylinder and dividing the medulla. At these points the sheath is thickened, and encroaches on the cavity of the fibre.

*The Human Spinal Column at Different Ages.*<sup>1</sup>—The changes in the proportions of the different dimensions and different regions of the column in the progress from birth to adult life have been traced by Professor Aeby with the patience and accuracy for which German anatomists are celebrated. He has measured the length of the column along both the front and the back of the bodies of the vertebræ, the length of the regions, of the individual vertebræ, and of the cartilages. He has made various studies of the proportions. He has also measured the bodies of the vertebræ both from side to side, and from before backward, and he has done the same to the vertebral canal.

For this work he has measured eight new-born children, seven of six months, one boy of two years, one girl of four, one boy of eleven, two girls of sixteen, eight grown women, and five grown men.

Beside all this he has studied the growth of the column before birth by measurements of fifteen fœtuses.

A minute analysis of this valuable paper would far exceed our limits, so we must confine ourselves to Aeby's conclusions with a few comments:—

(1.) "The proportions of the spinal column of the child and of the adult are essentially different."

(2.) "The lumbar region in the child is relatively shorter than in the adult, and the cervical proportionally longer. The dorsal region is of the same relative value in both."

(3.) "The adult spine is more slender than that of the child in all its parts, but especially in the upper ones. The consequent loss of breadth is not only more general, but on the whole more marked, than that of thickness" (from before backward).

(4.) "The vertebral canal of the adult is, as a whole, smaller than that of the child, not only in proportion to the length of the column, but also to the transverse diameter of the vertebræ."

(5.) "The column of the child and of the adult contain proportionally the same amount of cartilage, but differently divided."

We reproduce a part of Aeby's table showing the proportion of the cartilage to the whole of each region, the latter being considered one hundred. We give his averages of new-born children and of adult men and women, omitting the intermediate stages.

<sup>1</sup> Die Altersverschiedenheiten der menschlichen Wirbelsäule. Archiv für Anatomie und Entwicklungsgeschichte, 1879, Heft 1 and 2.

	Cervical Region.	Dorsal Region.	Lumbar Region.
New-born child . . . . .	26.4	31.1	35.2
Woman . . . . .	20.7	18.3	30.7
Man . . . . .	24.5	24.0	36.6

We fail to see that these figures authorize the conclusion. In the female columns there seems to be a general decrease in the amount of cartilage. It is to be noticed that in both the male and female spines the dorsal region has decidedly less cartilage (relatively) than at birth. We imagine that in this matter there is a vast deal of individual variation. The discrepancy of the statements of authors as to the relative quantity of bone and cartilage in the different regions is well known.

(6.) "The separate pieces of the spine of the child are less different than those of the adult."

(7.) "Sex has no influence on the course and conclusion of the whole process of development."

We are inclined to believe that practically (as for estimating the length of missing portions) there is no, or very little, difference between the proportions of the male and female spines. The number examined, however, is hardly sufficient to show that sex is without influence. The table given just above does not confirm this view.

(8.) "The spinal column follows a uniform plan of development from the beginning. The changes of form after birth are but the continuation of similar changes before it."

This is to say that the changes mentioned in the second conclusion are in continuation of similar ones preceding it. The author shows this by his measurements of *fœtuses*. He divides them into groups, according to the length of the spine, the first group comprising those in which it is less than ten millimetres. In the following table the same method of classification is applied to older spines. The table shows the relative length of each part of the spine, the value of the whole being 100:—

Length of Spine in Millimetres.	Neck.	Back.	Loins.
Up to 10	31.8	46.6	22.0
10 to 20	29.3	47.2	23.3
20 to 40	27.6	48.7	23.7
40 to 80	26.8	48.3	24.9
80 to 170 (new-born child)	25.1	48.0	26.9
170 to 340 (four years)	23.9	47.4	28.7
340 to 582 (adult)	21.5	46.0	32.3

This shows very plainly that the relative length of the dorsal region is practically always the same, but that in the earliest stages the neck is relatively long (nearly one third) and the lumbar region relatively short (little more than one fifth). The neck is continually losing its advantage, so that at about the time of birth the lumbar region catches

up with it, soon passes it, and in the adult we find that these two regions have almost precisely interchanged their original relative values.

*Inequality in Length of the Legs.* — Dr. J. G. Garson<sup>1</sup> has made a really valuable contribution to the literature of the question of the inequality in length of the legs, which has of late been a good deal discussed. The reader is referred to the recent Report on Orthopædic Surgery, by Dr. Bradford,<sup>2</sup> for an account of what had previously been done. The measurements had been made only on living persons, with the exception of eight skeletons measured by Dr. Roberts<sup>3</sup> and eleven by the writer of the present report.<sup>4</sup> These measurements of skeletons showed that asymmetry was the rule, but the number of observations was too small to be quite conclusive. Dr. Garson has measured the lower extremities, both femora and tibiæ, of seventy skeletons of various ages and races in the collection of the Royal College of Surgeons. The measurements were made in millimetres. Only seven (ten per cent.) of the extremities were of equal length, and only two of these (and consequently of the whole seventy) had the femora and tibiæ respectively equal. The left leg was longer than the right in thirty-eight cases, the average excess being 4.8 mm., while the right was the longer in twenty-five cases, the average excess being only 3.3 mm. It is curious to notice the share the separate bones have in bringing about these discrepancies. There is much more tendency to variation in the femur than in the tibia. Thus the femora were equal only nine times, while the tibiæ were so in seventeen cases. The left femur was the longer in forty-one legs and the right in twenty, while the right tibia was the longer in twenty-nine and the left in twenty-four. By further analysis of Dr. Garson's table we find that in twenty-four cases either the femora or tibiæ were respectively equal, the difference of length (if any) in the legs depending on one segment only. Now of the forty-six cases in which both the femora and tibiæ presented differences, the longer femur and tibia were on the same side in twenty-one skeletons, and in twenty-five on opposite sides.

*Supernumerary Nipples and Mammæ.* — We are indebted to Dr. J. Mitchell Bruce<sup>5</sup> for some interesting researches on this subject. The most striking result of his studies is to show that anomalies of this class are not so uncommon as they are generally supposed to be, and that they occur more frequently in men than in women. Of ninety-two recorded cases collected by Leichtenstern,<sup>6</sup> seventy were in women. The erroneous idea that females are more subject than males to this anomaly no

<sup>1</sup> Journal of Anatomy and Physiology, July, 1879.

<sup>2</sup> The JOURNAL, May 15, 1879.

<sup>3</sup> Philadelphia Medical Times, August 3, 1878.

<sup>4</sup> The Identification of the Human Skeleton.

<sup>5</sup> Journal of Anatomy and Physiology, July, 1879

<sup>6</sup> Virchow's Archiv, Band lxxiii., 1878.

doubt arises from the fact that the phenomena of pregnancy and lactation call attention to the thoracic region. Dr. Bruce judiciously points out that we are now liable to fall into the opposite error, owing to the greater facility for the indiscriminate examination of men. Dr. Bruce is, we believe, the first to present any statistics of the frequency of these appearances. He examined 3956 patients at the Hospital for Consumption, Brompton, and found among them 61 individuals with extra breasts or nipples. Of these patients 1645 were males, among whom 47 (2.857 per cent.) were thus affected, and 2311 were females, of whom only 14 (.605 per cent.) were affected. The women, however, were less thoroughly examined, and some cases probably escaped notice.

In order to avoid this cause of error, Dr. Bruce systematically examined a series of 315 persons taken indiscriminately. Of these 24 persons presented the anomaly, and in four it was doubtful whether it existed or not. Of the 315 persons 207 were males, and of these 19 (9.11 per cent.) had extra nipples; 104 were women, and of these only five (4.807 per cent.) were similarly favored. Thus it appears that the smaller series of accurate observations gives quite different results from the larger one. It is to be noticed that the 315 persons are a part of the 3956.

The supernumerary nipple was usually single, and more frequently on the left than on the right. It was always on the front of the body below and within the normal one. In a very few cases it was in the upper part of the abdominal region.

It is a remarkable fact that in no case was the anomaly found to be hereditary, but for obvious reasons this question could not be very thoroughly investigated.

*New Accessory Thyroid Glands.*—Several variations of the thyroid body have been described, and detached lobes are not unknown, but the peculiarity of those described by Kadyi<sup>1</sup> is in their position. Gruber has found the central lobe extending behind the hyoid bone, but we are not aware that it has been seen higher till now. Kadyi found it in front of the hyoid bone and above the mylo-hyoid; consequently in the region of the mouth. The structure was very small, the largest being no bigger than a pea. Microscopical examination revealed the structure of the thyroid. Kadyi observed this anomaly in ten subjects of sixty-eight which he examined for it. He finds it advisable to divide these extra glands into *glandulæ præhyoides* and *glandulæ suprahyoides*. Both are situated in the median line, the former being just in front of the hyoid between the genio-hyoids, the latter apparently between the genio-glossi and touching the septum of the tongue. The two kinds may

<sup>1</sup> Ueber accessorische Schilddrüsenlappchen, etc. Archiv für Anatomie und Entwicklungsgeschichte, 1879, Heft 3 and 4.

coexist. Kadyi has found a series of extra-thyroid glands in the neck of a fœtus of five months. They were four in number, three being one above the other in the neck, the fourth being a præhyoid. The author is inclined to consider these remnants of the thyroid, which he believes is relatively very large at an early period and surrounds the body of the hyoid. The author himself calls attention to a monograph, which appeared at about the same time, on the same subject by Zuckerkandl, who had made the same discovery independently. He states that Zuckerkandl's results are essentially the same as his own, but that Zuckerkandl, having more new-born children to dissect, had found the extra gland more frequently, and had also noticed some uncommon forms.

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#### PROCEEDINGS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION.<sup>1</sup>

THE last paper of the morning session of the second day, August 27th, was on the Tattooing of Nævi, by Dr. S. Sherwell, of Brooklyn, which, he stated, was supplementary to a previous one on the same subject that had been read before the New York Dermatological Society, and afterwards published in the *Archives of Dermatology*. In it he described a case in which the good effects of the method were very satisfactorily shown, and at the conclusion of the reading of it he introduced the patient upon whom the procedure had been practiced. This was an unmarried lady, twenty-seven years of age, who had a nævus of the "port-wine stain" variety covering the whole of the chin, and involving the vermilion border of the lip. Near the centre of the left cheek there had also been a large dark spot of similar character. Since September, 1877, Dr. Sherwell had tattooed the nævus twice over its entire surface, with the exception of the spot on the cheek, which was cured by a single operation. On one of these occasions the needles used were dipped in a solution of chromic, and in the other of carbolic, acid. Twice afterwards the areas of most discoloration remaining were selected and operated upon in a similar manner, and it was expected that one final tattooing, to be performed during the coming autumn, would complete the cure. While this method was neither painless nor instantaneous, he believed that it had advantages over all others with which he was acquainted. Since his last paper Dr. Sherwell said that he had not changed his after-treatment, and that he still had great confidence in the utility of the application of collodion. The difficulty and tediousness of cure were about in inverse ratio to the size of the nævus, and parts that were pendulous, like the lip, were the most difficult and painful to operate upon.

The subject of the treatment of vascular nævi was then discussed by Drs. Heitzmann, White, Hardaway, Hyde, Fox, and the reader of the paper. Drs. Hardaway and Hyde had both been quite successful with electrolysis, and the former dwelt upon the importance of using a number of fine needles instead of a single one in this method. Dr. White said that he was particularly glad

<sup>1</sup> Concluded from page 345.

to hear the views of the different gentlemen in regard to this matter, as personally he had not yet been able to deal with the affection in a satisfactory manner. Notably he had failed in two cases in which he had practiced the plan recommended so highly by Mr. Squire, of London, although he had followed the directions given by him to the letter, and he had consequently resolved never to attempt it again.

The report of the committee on statistics was now made through its chairman, Dr. White, and it contained a special report in regard to the subject of leprosy, with a statement concerning this disease in the Northwest by Dr. Hyde, of Chicago.

Then the committee on classification and nomenclature also made its annual report through the chairman, Dr. Duhring. The only change recommended in the classification adopted last year was the placing of carcinoma under a separate subdivision, marked No. 4, of Class VI. (new growths), and at the conclusion of the report this was accepted by a vote of the association.

At the afternoon session a report of a case of multiple tumors of the skin, accompanied with intense pruritus, was read by Dr. Hardaway. The patient was an unmarried lady, fifty-one years of age, in whom the skin disease referred to had existed for twenty-two years. One of the most curious points about it was that it affected only the hands, arms, feet, and legs, stopping abruptly at the shoulders and knees. The principal lesions were tubercles and tumors, varying from the size of a small pea to that of a hickory nut, the two being in about equal proportions. In their natural condition they were always covered with thickened epidermis (presenting a horny feel to the touch), but this was generally removed by scratching. There were also numerous scratch-marks, with resulting pigmentation, over a great portion of the parts affected. As far as could be made out, no new lesions had appeared within sixteen months, nor had any of the old ones passed away. Indeed, the patient was confident that none had ever disappeared from the very first.

The pruritus, which was the prominent feature, had been almost unbearable, but it was thought to have diminished somewhat during the last few months. Iodide of potassium, arsenic, mercury, and other remedies had been tried, and cauterization of the tumors had also been practiced. Dr. Hardaway would not venture to give the affection a name, but said that analogies to giant prurigo and urticaria pigmentosa were suggested by it. A microscopical examination of specimens from the lesions, made by Dr. Heitzmann, showed that the disease was an inflammatory affection of the upper layers of the skin, there being hyperplasia of both the epithelial and connective tissue.

Dr. Heitzmann, in his remarks on the case, stated that it was altogether unique, as he had never seen or heard of anything like it.

Next followed a Supplement to a Case of Inflammatory Fungoid Neoplasm, by Dr. Duhring. This was the remarkable case which had been reported by him at the meeting of the association last year, when he had had the opportunity of presenting the patient in person. It had terminated fatally on the 5th of May, 1879. The autopsy revealed the fact that none of the internal organs were affected with the disease except the bladder, on the walls of which there was a tumor corresponding in character to those on the exterior portions



of the body. Dr. Duhring regarded it as most probably an inflammatory affection, although some of the microscopical features seemed to point towards sarcoma, and considered that it was identical in character with a case of Piffard's, referred to last year, and two that had been reported in Vienna by Geber and Hebra.

Dr. Heitzmann, on the other hand, took the ground that the disease was distinctly sarcomatous (although it certainly presented some unusual clinical features), and said that it was on this account that he had made the unfavorable prognosis in the case that he did last year.

The next paper was one on *A Variety of Molluscum Verrucosum presenting certain Unusual Features*, by Dr. Hyde. The patient was a native of Germany, thirty-five years of age, with a good family history, and presenting no evidence of syphilis. Between two and three years ago he first noticed a number of spots on the left buttock, which were as large as pin-heads and of a white color. They spread over both thighs, finally exhibiting the features visible at the time the case was first seen (August 16, 1876), and at the end of a year disappeared. Three months afterward the eruption again made its appearance, and when first examined by Dr. Hyde it presented the following appearances: The integument of the trunk, thighs, and legs to the tops of the boots, and, to a slight extent, the hands, was covered with bodies which looked like papulo-pustules, but which were found to contain neither pus, serum, nor any other fluid. The newer lesions were of a dead, whitish hue, resembling milium in their general appearance, and the older ones were of a delicate crimson, but all possessed the waxy-white summit which was the distinguishing characteristic of the eruption. They involved the entire thickness of the integument, and were surrounded by perfectly healthy skin. By January, 1878, the lesions had almost disappeared; but as the warm weather came on, in the following spring, there was a marked recurrence of the trouble. During the present season, however, the patient has been entirely free from the disease. Owing to certain circumstances which Dr. Hyde mentioned, no microscopical examination of the lesion was made.

It was stated that the diagnosis was not an easy one, and Dr. Hyde discussed the probability of its being a telangiectasic or a lymphangiomatous new growth. After referring to various authorities, and mentioning particularly Hutchinson's cases of molluscum contagiosum, he quoted a letter which he had received from Professor Kaposi, of Vienna, in regard to the case, and said that in deference to the views stated therein he had decided that it was probably one of molluscum verrucosum.

The first paper read on the third day, August 28th, was one by Dr. White, on *Ætiology*, and in it he combated with great force many of the popular fallacies, crude ideas, and erroneous opinions which are prevalent not only among the laity, but also among many of the profession. These, to a great extent, were primitive beliefs and theories which had been handed down from former generations in expressions of speech still in frequent use.

Three chief points were enlarged upon, namely: (1.) The inherent right of the skin to independent diseased action. (2.) The identity of the pathological processes found in the skin with those met with in other portions of the sys-

tem. (3.) The applicability of the same methods of observation and induction employed in all other parts of the body to disease of the skin.

In the course of the paper he urged very strongly the local nature of cutaneous affections in general, and ridiculed the idea of diatheses and internal origin as many authorities entertained this; stating that such writers were too apt to magnify mere coincidence into essential cause. What Dr. White proposed was that all this "rubbish of superstition" and all these crude theories should be swept away, and then that a system should be built up which would be founded on a basis of observation, experience, and sound deduction.

This paper naturally gave rise to a prolonged discussion as to the connection of diseases of the skin with internal states of the system; for while a large part of the members present accepted Dr. White's views to a greater or less extent, some were strongly opposed to them, and were unwilling that they should go forth as the authoritative opinion of the association.

The next paper was on *The Nature of Syphilis*, by Dr. R. W. Taylor. After giving the views and theories of various authorities, he stated his own conclusions as follows:—

"Syphilis is a disease of the connective tissue, and not primarily of the lymphatics or of the blood-vessels, although the blood may be temporarily modified and may be the vehicle of contagion. The secretions of syphilitic lesions are found to consist of a serous fluid containing numerous shining granules or molecules, which are masses of protoplasm or germinal matter, holding the contagious properties of syphilis. These microscopic bodies are probably taken into the circulation by the lymphatics, and conveyed over the body. The fact that serum alone does not convey the syphilitic poison goes to prove that the corpuscles hold the contagious material.

"In the secondary period of syphilis these cells are very numerous, and the body may be covered with papules and tubercles composed of them. As the disease wanes, these lesions become more localized and fewer in number, and the blood is less contagious. Finally, these cells may be limited to a few gum-mous tumors; the blood no longer carries the molecules, and it loses its contagious properties. The cells no longer have a tendency to reproduction, which characterizes them in the early stages, but rather degenerate. Hence we consider the blood and the secretions in tertiary syphilis innocuous. . . . The periods of latency observed in the course of syphilis are of interest, and may perhaps be explained in the following way: Each outburst is attended by the development and multiplication of the peculiar cells, which run their course and are finally absorbed. Some remain, and after a time are excited by unknown causes to activity. Thus repeated exacerbations may occur, each one depending upon the multiplication of cells remaining from a previous outburst. But each relapse is less active and less prolonged than its predecessor, until perhaps only one nodule, and that composed of effete cells, may remain. The disease is thus cured."

In the discussion which followed, Dr. Heitzmann said that he believed that the nature of syphilis was still a perfect puzzle, but that he had himself been for some time engaged in researches in regard to the subject which he hoped would eventually throw some light upon it.

The last paper read before the association was one by Dr. Hardaway on A Simple Method of obstructing the Varicose Vessels in Rosacea. This was by means of electrolysis, the plan being similar to that which he had adopted in the removal of superfluous hairs, as stated in a paper which he sent to the association last year. So far as he had had the opportunity of employing it, the results had been very satisfactory; but his experience had not been long with it, and he had brought the method forward at this time especially to induce others to make trial of it.

After remarks by Drs. White, Wigglesworth, Hyde, and Bulkley, the president made a brief address on assuming the chair for another year, and the association then adjourned. In the afternoon a clinical session was held at the New York Hospital, when a number of cases of unusual interest were presented by various members from New York and Brooklyn.

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### UTICA LUNATIC ASYLUM.

THE superintendent's report for 1879 presents several points of interest which we can merely glance at. Dr. Gray notices a growing tendency to send patients to the country establishments, not only from almshouses, but from home, in order that they may be within easy reach of friends and relatives. This would not be objectionable in chronic cases, if the standard of treatment should be raised to correspond with state provision for the chronic insane at Willard Asylum. There may also both exist there as well as here, a proper dread of keeping weak-minded and usually harmless insane persons where they may not only injure themselves, but, as in frequent recent instances, destroy the lives of other inmates by setting fires or by wholesale poisoning.

The number admitted during the year was 427. The per cent. of recoveries, 33.72. Average per cent. of recoveries for thirty-six years, 37.5. The increased frequency of general paralysis is shown by a table running back to 1849. Previous to 1863 the annual number admitted with this disease averaged but five; since that year, twenty-one.

The pathological report shows a commendable effort to advance our knowledge of the cause of insanity. Great stress is laid on the morbid appearances of the vessels of the brain, and the most frequent changes observed are mentioned. A microtome for cutting giant sections, including the whole brain, is minutely described, with the method of mounting them. An average brain will furnish two thousand sections, presenting a mass of the normal anatomy as well as of morbid conditions, likely to be of great value. An account of nine cases, with autopsies, is given in full.

Dr. Gray does not discourage general visiting, and thinks the patients rather like it. The number of general visitors last year was 7825; of visitors to patients, 1988. This, in addition to visits of officials, made a total of 10,000 persons who came in contact with the patients last year.

In an appendix Dr. Gray compares the laws of England relating to the commitment, detention, and discharge of insane persons with those of New York, and observes that in regard to the former the guarantees both for pri-

vate and pauper patients are greater under the New York statutes, and we may add that the laws of Massachusetts are more stringent than either. In respect to supervision, the safeguards are about equal in all.

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### SMITH'S OPERATIVE SURGERY.<sup>1</sup>

IN 1862, Dr. Stephen Smith prepared a hand-book of surgical operations specially designed for military practice. The success of this book was such that he was encouraged to enlarge it so as to embrace the surgery of civil practice. It might be supposed that such a book was but another addition to the already large list of works on operative surgery, but this is far from being the case. The design of the author has been to fill a place in surgical literature which, so far as we are aware, has not hitherto been occupied. He has endeavored to profit by the advice given by Malgaigne, that such a treatise, to satisfy all the requirements of the age, should for each operation discuss indications, exactly study the surgical anatomy, review all proceedings, and, after mature examination and judicious choice of the best, describe the manipulation with all the necessary details, point out the different modes of dressing, give a statistical account of successes and failures, and, finally, in autopsies, seek the causes of death in fatal cases. Of course no such elaboration has been attempted in the compact work which he has produced, but the latest teachings of the highest authorities have been embodied in the text, and in such a form and to such an extent as to make them most available and instructive to the reader. A great many subjects have been submitted to experts for sanction and revision, in which way the individual parts have been brought to a high standard of excellence; at the same time the work has been skillfully edited, so as to give to each part its proportionate space, and to preserve a uniformity of style which makes it peculiarly valuable for reference. Thus, while the opinions of all prominent writers are given, the text is not overladen and obscured by quotations or references, but a simple letter indicates, at the foot of the page, the name of the author whose views the writer is interpreting.

The book opens with a chapter on the obligations of one who undertakes a surgical case, four pages containing advice with which every young surgeon should be familiar. This and the next ten chapters are devoted to the Principles of Surgery, and embrace such subjects as the Examination, the Preparation, Hæmorrhage, Anæsthesia, the Operation, Dressings, Repair, etc. Under the latter title is a brief summary of a portion of surgical pathology with which, in its modern aspect, many surgeons are not too well acquainted. Its main points are clearly described. The present fashionable modes of dressing wounds are all to be found here by those interested in modern innovations; Guérin's cotton-wool dressings, which at any other period than the present would have had a well-deserved "run," are here given. Part II. is devoted to the bones and the joints; here we have the treatment of fractures and the various operations for resection all copiously illustrated, — not the old stand-by pictures, but

<sup>1</sup> *Manual of the Principles and Practice of Operative Surgery.* By STEPHEN SMITH, A. M., M. D., Surgeon to Bellevue and St. Vincent Hospitals, New York. Boston: Houghton, Osgood & Co. 1879.

a discriminating selection from such articles, when needed, which have not yet crept into the text-books. The Bellevue Hospital method of applying the stiff bandage is among them, with a brief explanation. Bigelow's hip and Taylor and Sayre's apparatus for the various joints are all here. The muscular system comes next, and, though short, contains much that is valuable; we may mention that not infrequent, but, to most, obscure affection of the palmar fascia, the pathology and treatment of which occupy a page. Following the circulatory, nervous, and tegumentary systems, where, by the way, there is a useful section on subcutaneous injection, comes Part VII. Here we find the digestive organs, where the operations on the mouth (teeth, tongue, tonsil, and salivary glands), pharynx, and œsophagus (foreign bodies, etc.), and stomach may be studied. Diseases of the rectum and the various cures for hernia are interesting chapters, and give all the practical points one needs in his daily rounds. Under respiratory organs one has a good deal about the treatment of disease of the nasal passages and larynx; also full directions for paracentesis thoracis. The chapters on the urinary and male generative organs give in a nutshell the views of such well-known men as Van Buren and Keyes, Bigelow, Otis, Gouley, Sir Henry Thompson, and others. The gynecological chapters can hardly be said to be up to the prevailing high standard, although fairly represented. Part XL includes the last three chapters on amputation, deformities, and compensative appliances, respectively.

The book is in fact an epitome of practical surgery, including everything that can reasonably be included in that department. When we find that it contains nearly seven hundred pages and considerably over a thousand illustrations, it is a matter of surprise that so much can be compressed into a book small enough to carry easily in one's overcoat pocket. The type of the Riverside Press is, however, so clear, and the publisher's work so neatly and handsomely done, that the effort at condensation is not appreciable to the reader. The style of the book is indeed an elegant model of its kind. It is evidently intended as a ready book of reference for the busy practitioner, and could easily be stowed away in his satchel or under his "buggy" seat for any emergency.

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#### ATTFIELD'S CHEMISTRY.<sup>1</sup>

THE present edition of this book has been enlarged by the addition of about twenty-five pages, so that it now includes the whole of the chemistry of the United States Pharmacopœia, of the British Pharmacopœia, and of the Pharmacopœia of India. The index contains three hundred new references relating to the additional material introduced. In an appendix are a number of useful tables. It is to be regretted that the author still retains the sections on Toxicology and Morbid Urine, Urinary Sediments, etc. The treatment of these subjects does not belong to a book of this kind, while in the present case there are the additional criticisms to be made that they are behind the recent advances in medical chemistry as regards the processes and tests which are given, and that the number of pages devoted to them (twenty-three) is

<sup>1</sup> *Chemistry: General, Medical, and Pharmaceutical.* By JOHN ATTFIELD, M. A., Ph. D. Eighth Edition, revised by the Author. Philadelphia: Henry C. Lea. 1879.

wholly inadequate to give the student any available information on the subjects. With their omission the word "medical" should be removed from the title-page. The author has also been too brief in his treatment of the non-metallic elements. The addition of a few pages to this division of the subject would add to the value of the work as a text-book. In spite of these criticisms, however, the book is one which can be recommended. It contains much more general information than is usually found in books of this kind, and the subject matter is well arranged. It is especially adapted to the use of pharmaceutical students, and is by far the best text-book in chemistry for their purposes that we are acquainted with.

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### KLEIN AND SMITH'S ATLAS OF HISTOLOGY.<sup>1</sup>

THE number before us is devoted to muscular fibre and to cerebro-spinal nerves. Unstripped muscle cells, according to Klein, consist of a fine sheath with transverse thickenings. The substance filling this sheath is held to be fibrillar, the fibrillæ of which anastomose with intra-nuclear net-work.

At this moment striped muscle occupies a great deal of attention, for the most opposite views are held by distinguished observers, and no view has been supported by sufficient evidence to make its acceptance obligatory. Most will agree that peculiar optical conditions occasion the perplexing effects which the fibre presents. Our object, therefore, is to discover some apparatus that will give similar appearances. The solutions have usually been made on theoretical grounds, and it must be admitted that nothing conclusive has been advanced. Under these circumstances we were in hopes that this work would give us some new light, but we find ourselves disappointed. The theory offered seems neither satisfactory nor in accordance with facts. In brief, we are told that we have the frame-work of the fibre and the muscular substance. The frame-work consists of the sarcolemma and a number of transverse partitions, called Krause's membranes, dividing it into compartments. As to the substance itself: "(a) each muscle compartment contains one broad, dim, *contractile disk*, highly refractive, composed of prismatic rods, sarcoous elements; (b) a narrow, transparent, *lateral disk* placed at each end of the contractile disk, and consequently at the side of Krause's membrane." In some fibres the authors admit that the lateral disk contains a row of granules, but they apparently do not favor Schaefer's ideas. We have no space to discuss these views, which seem to us ingeniously wrong. The study of beetle muscle (especially that of the *Gyrinus*) has convinced us that the black stripes are of granular structure, and that the other shades of the ground substance are but optical effects. Krause's transverse membranes are quite problematical.

The chapter on the cerebro-spinal nerves is very satisfactory. It gives a condensed account of the results of recent work. We would call attention to the authors' belief that during life there is an albuminous fluid between the axis cylinder and the semifluid medullary substance around it. T. D.

<sup>1</sup> *Atlas of Histology*. By E. KLEIN, M. D., and E. NOBLE SMITH, L. R. C. P. Part V. Philadelphia: J. B. Lippincott & Co. London: Smith, Elder & Co. 1879.



A TEXT-BOOK OF PHYSIOLOGY.<sup>1</sup>

THIS book presents relatively few points for commendation, while its shortcomings are very conspicuous. So far as mere mechanical structure is concerned the book is well written, well printed, and reads easily. Moreover, the author possesses the happy faculty of condensing his information with the least sacrifice of clearness. Beyond this we can say little to commend the work as a text-book for students or teachers.

Assuming to be a treatise on physiology, it devotes a very large space to anatomy and histology. We allow with Dr. Fulton that "a knowledge of histology is the key-stone to physiology," and we feel that no student should attempt the study of physiology without an appropriate knowledge of both histology and anatomy; but we do doubt the propriety of endeavoring to combine these various branches in one small text-book, to the evident detriment of them all. It seems a parody on physiology, for instance, after devoting numerous pages to the anatomy and histology of the liver, to snuff out the glycogenic function of that organ on one scant page. Indeed, this illustration may serve to indicate the character of the entire book.

In the small space left for physiology after the other branches have had their show, we find references to the simpler and most readily understood functions of various organs, but we search in vain for any discussion or elucidation of the many important problems which are agitating the working physiologists of the day. Moreover, in the absence of all reference to experiments or to other instrumentalities by which physiological knowledge is attained, we assume that Dr. Fulton is not a laboratory worker himself.

In regard to the accuracy of the subject matter of the book, we find but little to criticise. The information given, so far as it goes, is correct; but we must take exception to the emphatic manner in which the author has dealt with many problems, laying them down as clearly defined and settled, when they are still the subjects of active controversy and investigation. It is unfair to students when an author or teacher doles out his own personal convictions regarding disputed points, and bright students always resent such treatment.

In conclusion, we extend our sympathy to the medical students of Toronto that they are obliged to study so superficial a text-book, when other and more comprehensive books should be accessible to them.

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THE PHARMACOPŒIA OF THE BRITISH HOSPITAL FOR DISEASES OF THE SKIN.

THIS little pocket collection of remedies contains a large number of formulæ of very unequal value in the treatment of skin diseases in the hands of those who have been trained to use them, and, lacking any sufficient directions for their employment, it is well-nigh valueless.

<sup>1</sup> *A Text-Book of Physiology.* By J. FULTON, M. D., M. R. C. S. Eng., L. R. C. P. Lond. Second Edition. Philadelphia: Lindsay and Blakiston. Toronto: Willing and Williamson. 1879.

<sup>2</sup> *The Pharmacopœia of the British Hospital for Diseases of the Skin.* Edited by BALMANNO SQUIRE, M. B. London, Senior Surgeon to the Hospital. London: J. and A. Churchill. 1879.

## THE YELLOW FEVER IN MEMPHIS.

THE failure of the English government, several years ago, to isolate Malta, and keep it free from a general epidemic of cholera, and the same want of success in limiting the disease to Beirut in 1873 by a military cordon, had led the sanitarians of Europe almost to acknowledge their utter inability to cope with any great infectious disease that might once get a foot-hold on any of the highways of commerce; and this opinion was not weakened by the success of the Russians, last winter, in checking any spread of the plague from a few little isolated hamlets on the banks of the Volga. Indeed, when the yellow fever appeared in Memphis, a great commercial centre, so early as the 9th of July, it seemed to many persons almost inevitable that it must extend in an ever-widening circle until the cold weather of the autumn should set in. Our correspondent from Memphis gives us a good idea of the exertions that are making in that city to prevent the pest from spreading northward, and generally over the country. But the real history of the long, tedious watch, the efforts to overcome popular prejudices, the hopeless task of trying to make the city really clean, in the true sense of that word, to say nothing of the opposition to intelligent, thorough sanitary work, will probably never appear in public print. We regard the limitation of the yellow fever to the city of Memphis and the prevention of its spread as one of the greatest feats of modern sanitary science. It has been due to work which has been well planned, and, in consideration of the many obstacles in the way of success, most admirably managed.

All of our accounts from the ill-fated city do not agree with our correspondent's view that Memphis is even reasonably clean. The discrepancy perhaps may be explained by Dr. Rush's famous remark that there is a difference between filth and dirt. The city carts may go about and collect the scrapings from the streets, and chloride of lime may be used by the ton, and yet with very little result in making a city free from filth, according to the sanitarian's use of that word, when thousands of cess-pools and privy vaults remain uncleaned and uncleanable for years, to fill the soil with unseen filth.

We appreciate the great work that must be done throughout this country before we can reasonably hope to be assured of immunity from destructive epidemics. If our climate has rendered us secure from the invasions of yellow fever, we do not mean to shut our eyes (we must hold our noses) to the fact that many of our own cities and towns are in a disgraceful condition, while parts of Boston, New Bedford, and Salem might almost rival Cologne in the high flavor of their prevalent stinks. We have made a start, however, and our towns are vastly better than they were even ten years ago. Certainly, we have nothing to equal or pretend to rival the condition of some of the cities recently reported on in the Bulletin of the National Board of Health. The country can fairly demand that such gross neglect of sanitary laws should be no longer tolerated. In the mean time we have only our highest admiration to express for the few men who have been heroically fighting the great plague this summer, and who fully realize the dangerous condition of their surroundings, without being able to convince their fellow-townsmen of the importance of the only measures that will give permanent relief.

## MEDICAL NOTES.

— Dr. O. W. Holmes attained, the week before last, his seventieth birthday. The many complimentary notices given of this event, and the very high position assigned to him as poet and writer by the daily press, bespeak his great and justly earned popularity. Viewed from whatever standard, his reputation must be ranked as one of the highest order; but few who know him by his writings only can appreciate the privilege those have enjoyed who have had the opportunity to listen to his marvelous readings of his own poems and addresses. The spirit and fire of youth have in no way been dimmed by advancing years, as the past one has abundantly shown. His professional labors, although but little known to the world at large, have been highly prized by those whose wanderings among the thorny paths of anatomy have been cheered by the enlivening presence of their agreeable guide. We trust he may long be preserved to fulfill these grateful tasks, which it is in the power of but the gifted few to perform.

— The *British Medical Journal* states that at a meeting of psychologists in Heidelberg Professor Friedreich presented a patient who for the last three and a quarter years had been subject to clonic convulsions of the lips, the tongue, and the maxillary muscles. The lips were thrust forward; the tongue was rolled about in the mouth; the jaws opened and shut with great force, so that the tongue was frequently bitten. These convulsions continued even while the patient was asleep. The right pupil was enlarged; the pulse quick and somewhat irregular. Professor Friedreich thought these convulsions were caused by a circumscribed lesion of the medulla oblongata.

— A physician in Newark, deeming himself the victim of an unrighteous persecution, has thought it advisable to have a brother and two sisters arraigned on a charge of conspiracy to ruin his business, alleging in his complaint that they cut off his supply of water, obstructed the passages to his office, and whenever they saw a patient about to enter made the encouraging remark, "There goes another to be killed."

— At the Massachusetts General Hospital, where about one hundred and seventy beds are occupied, we find the following washing list for the week ending August 8th: Sheets, 1354; pillow-cases, 1015; towels, 2801; total number of all articles, 6928. This includes the patients' wash only. There are few hospitals where so much "clean linen" is to be seen.

## NEW YORK.

— Sanitary Inspector Nealis, of the New York Board of Health, who is one of the most experienced officers in its service, has just made a thorough inspection of the water supply and drainage system of the various hotels and other resorts on Coney Island. Although no special cases of sickness have been reported as due to the lack of sanitary precautions existing there, it has been thought well to have the inspection made, in order that needed reforms may be undertaken before any alarming results ensue; and it is stated that almost all of the proprietors of these places have already signified their willingness to commence at once such improvements as are deemed necessary. With the ex-

ception of the two large hotels at the east end of the island, — the Manhattan and the Brighton Beach Hotel, — the sanitary condition of most of the premises is deplorable, and it will need concerted action on the part of all who are concerned in order that the proper remedies may be applied.

The following are some of the conclusions arrived at by Dr. Nealis: The lack of any general system is very evident, and at present, despite the excellent air and the tonic effects of the surf bathing to those who are equal to it, there is danger of malaria and low forms of fever from the conditions which the inspection shows to exist at many points of the island. There is scarcely a single place which would be permitted by the New York Board of Health under the rules of the sanitary code. What are called wells are simply excavations down to the permanent water-level through the sand; for the whole island being merely a sand-bank, it is impossible to dig a well in such a place. In such a soil or foundation, the digging of a receptacle for water is doubly hazardous, owing to the fact that anything placed on the surface soaks with the greatest ease to the bottom or water-level. The entire island, from end to end, requires first of all a full supply of wholesome water, which could be secured by any of the houses at a very slight cost; and this free water supply is essential to any proper sanitary system. The next question is, how to get rid of the water and the refuse together. The island being very flat, there might be difficulty in securing a proper fall; but perhaps this might be accomplished by raising the sewer drain on a sort of viaduct. If fall enough could not be had, however, it might be necessary to maintain pumping engines.

— The extra corps of physicians appointed by the board of health to make house-to-house visits in the tenement districts, for the purpose of caring for the sick children of the poor, have concluded their five weeks' term of service, and have been discharged. During this period they visited 24,828 houses occupied by 137,888 families, and prescribed for 4048 patients. In considering these numbers, however, it should be taken into account that most, if not all, of the houses and families were visited more than once. Assistant Sanitary Superintendent Janes thus concludes his report on the service of the extra corps of physicians: "The cases of sickness found were mostly of a diarrhoeal character, and when met with in their incipency were easily treated. As these visits were confined to the very poor, whether residing in tenements or shanties, the above figures can furnish only an approximation to the relative amount of sickness among the entire tenement population."

— During the past summer forty-four free excursions have been given by the managers of the Sea-Side Sanitarium to 9500 destitute sick children and their mothers. Of the children, 1625 spent a week at the sanitarium, the cost for their maintenance being \$6476.

— The case of ex-Surgeon-General Hammond has been finally disposed of by his reinstatement, his name being placed on the retired list of the army although he is not entitled to receive back, present, or future pay, or allowance of any kind.

— On the occasion of his attaining his eightieth year, Professor Willard was visited at his country home at New Canaan, Conn., by a reporter of one of the New York dailies, and interviewed in regard to some of his reminiscences

of the past and opinions about the present. When asked how the physicians of to-day compared with those of forty years ago, he replied, "To tell the truth, I do not think the general practitioner is any more successful, notwithstanding that there have been so many great discoveries. . . . The medical men of to-day, I think, are inclined to go too much upon theory, and that is almost sure to result in occasional grave mistakes. . . . I cannot help thinking, also, that we have too many specialists nowadays in this country." At a later portion of the interview he said, "Speaking of anæsthetics reminds me of the fact that I might have been the accidental discoverer of the application of ether as an anæsthetic. When I was a lecturer at the Pittsfield Medical School it was a common custom of the students to pour sulphuric ether on their handkerchiefs and inhale it for a stimulant. Some of them used to breathe it until it had put them into the second stage of activity and excitement; and if one of them had kept it up until the third stage had been reached, we might perhaps have made the discovery right there."

—After a few months' sojourn in England, Mr. Callender, F. R. S., has returned to America. He was one of the passengers of the Cunarder Gallia, which arrived in New York on the 2d of September.

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#### LITERARY NOTES.

—Dr. William F. Whitney and Mr. F. H. Clark, apothecary to the Boston Dispensary, have prepared a compendium of the most important drugs with their doses according to the metric system. It is published by A. Williams & Co., in form sufficiently compact for the waistcoat pocket.

—The *Canada Medical and Surgical Journal* will in the future be edited by Drs. George Ross and W. A. Molson. It will appear on the 15th day of every month instead of the 1st, as heretofore.

—The Future Influence of the Johns Hopkins Hospital on the Medical Profession of Baltimore is the title of a pamphlet written and published by Dr. John Van Bibber. It was read before the Medical and Chirurgical Faculty of Maryland, and contains some criticism, undoubtedly fair, on the shortcomings of existing institutions, as the medical schools, and the great advantage of the new hospital as an educational agency. The tone of the article would seem to imply that the Baltimore doctors do not appreciate the value of this almost unprecedented gift. It is difficult to believe this to be the case. The appearance of this article in the newspapers occasioned considerable excitement in medical circles in Baltimore.

—The Transactions of the above-mentioned society, although they do not include Dr. Van Bibber's paper, contain valuable material. The annual address is by Professor H. Newell Martin, one of the faculty of the new university. It is on the Physiology of Secretion, and is, no doubt, the result of his laboratory work as teacher in the new school. Dr. H. P. C. Wilson describes a modification of Paquelin's cautery, designed to prevent the evil effects of heat from the instrument, as, for example, upon the vagina in operations on the uterus. We have never experienced the disadvantages alluded to, and the apparatus

designed seems to us to complicate the manipulation of the instrument. Among other papers we notice one on Yellow Fever, by Dr. Thomas B. Evans.

—The Proceedings of the Connecticut Medical Society appear in their usual neat form, edited, we presume, by Dr. C. W. Chamberlain, of Hartford, the secretary. The prevalence of diphtheria has brought out a number of papers on this subject. The existence of a state board of health is indicated in the increased attention to sanitation shown in these articles. The question of arsenic eating as a habit arising at a recent trial for murder in the State has induced Dr. P. A. Jewett to prepare a paper on this subject. It does not appear that the custom is at all prevalent in this country. Dr. A. M. Shew gives an account, with map, of the Insane Colony at Gheel, Belgium. Dr. R. S. Goodwin contributes an essay on Alcohol as a Therapeutic Agent. He takes ground against the modern fashion of over-stimulation in many diseases. Among these pneumonia is mentioned. Its use is also discountenanced in lactation and most chronic diseases, although the milder forms of stimulants are here advised. "It will always be invaluable," he says, "in sustaining the heart's action during alarming crises of disease." We should be glad to hear more on this subject.

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#### LETTER FROM MEMPHIS.

MR. EDITOR, — As Memphis now stands prominently before the world, a few lines taken from our daily history may prove interesting to your readers.

The announcement, July 9th, by the board of health of the death of Thomas Mulbrandon of yellow fever created the greatest panic among our people; but it was not until the announcements of Thursday, July 17th, that the panic seized our more hardened citizens. Thousands of the more timid had already departed for more salubrious climes, but now the exodus became general. The prompt depopulation of the city from the first was the means of saving thousands of lives here, and prevented the dissemination of the germs of the disease over the entire country, as evidenced by the continued good health of the surrounding neighborhood. Further depopulation is desirable, but for many reasons unattainable; the colored population, although they have been invited to camps, still persist in their foolhardy decision to remain. This action on their part is the result of bad leadership, and thus the lives of hundreds of their race will be sacrificed to serve the ends of a few for personal gain. According to the census of the city, completed July 28th, there are still 16,000 people in the city. Of these, however, only 4283 are white. Since the taking of the census many of the whites have gone to camps, leaving a much less number than that furnished by the census.

On the 12th of July Dr. Clark, of Nashville, secretary of the State Board of Health, visited Memphis, and after consultation with Dr. R. W. Mitchell, member of the National Board of Health, Dr. G. B. Thornton, president of the City Board of Health, and Hon. John Johnson, member of the State Board of Health, inaugurated a quarantine at this point to prevent the spread of yellow fever. Inspectors were appointed for the depots and transfer stations of each road, also for steamboats, according to the rules and regulations of the National Board. No person was allowed to leave the city who had not



complied with these regulations. Baggage and mail were fumigated with sulphurous acid gas for three hours. This was and is still being done thoroughly. At first persons were allowed to take trunks with such articles of clothing as they desired to carry; but now, by order of the superintendent of quarantine, a valise containing only a change of linen is all that is permitted to be taken through the lines of quarantine. No person is allowed to leave or enter the city unless provided with certificates from the superintendent of quarantine, and state inspectors on the train see that this order is carried out. As conducted, it is absolutely impossible for any one to leave or come into the infected district without complying with the quarantine regulations.

As a very erroneous statement has been made that absolutely nothing was being done by the local authorities to arrest the spread of the disease, a few lines as to what has been and is actually being done may not be uninteresting. Isolation was first practiced, but is now discontinued for the reason that the entire city is infected. Disinfection, however, is pushed as far as is possible under the circumstances.<sup>1</sup> The National Board early in the action furnished money for every want, and for the means of giving disinfection a thorough trial. Men and carts were employed under the direction of competent men to disinfect premises and houses in which yellow fever had occurred. Bedding, etc., are usually burned, but when too valuable or the owner refuses to allow this, it is thoroughly disinfected by means of superheated steam, or by fumigation with sulphur. Copperas, lime, carbolic acid, etc., we have in abundance, and they are liberally used. Every privy vault in the city is being covered over with lime, effectually sealed with it, two and three barrels being emptied in each pit. There are about twenty-five hundred people in camps near the city. The sanitary condition of these camps is excellent; they are under military discipline, and no one is allowed to leave them. Quarantine camps are stationed some distance from the main camps, where new-comers are kept under surveillance for a period of ten days before being permitted to enter the general camps. Free rations are furnished only to those who go to camps. The president of

<sup>1</sup> I inclose a copy of the instructions for disinfecting, which have been issued to nurses or other persons having charge of sick-rooms.

*Instructions for Disinfecting.* — The nurse or other person having charge of the sick-room should observe the following precautions and directions: —

(1.) Remove from the sick-room all unnecessary furniture, carpets, woolen curtains, etc., and especially upholstered furniture. (2.) See that the utmost cleanliness is preserved and fresh air admitted into the room. This must be done without subjecting the sick person to draughts of air. (3.) All discharges from the patient should be received in vessels containing the copperas solution, or, when this cannot be done, should be immediately covered with the same solution. (4.) Cotton, woolen, linen, flannels, blankets, towels, etc., should be put in the boiling hot zinc-and-salt solution, introducing piece by piece, wetting each article thoroughly, and boiling for at least half an hour. (5.) The corpse should be thoroughly washed with the zinc-and-salt solution (using half a bucket of water). It should then be wrapped in a sheet wet with the same solution, and buried at once.

*Zinc-and-Salt Solution, for Clothing, Bedding, etc.* — Sulphate of zinc one half pound, common salt one quarter pound; dissolve in two gallons or one bucketful of hot water.

*Copperas Solution, for Vessels used in the Sick-Room.* — Copperas three pounds, dissolved in one bucketful of water.

N. B. Every case of yellow fever resulting in death or recovery must be promptly reported to this office, that the premises may be thoroughly disinfected.

JOHN JOHNSON, Superintendent Quarantine.

the Shelby County Medical Society has appointed committees on ætiology, pathology, and treatment. A thorough investigation of yellow fever is expected, and a general report will be made by the society after the close of the epidemic. Last year the physicians were kept too busy to take notes at the bed-side, but now blanks for the purpose have been furnished by the society to its members, and each member is expected to hand in a complete report of each case to the secretary. Such a report will be of the greatest value to the profession at large, and it is hoped it will be complete.

Thus far there have been 862 cases and 221 deaths. Although the disease is attacking the colored people, yet it is not so fatal in them as among the whites. In my next I will give some statistics on this point that may prove of value. One word in reference to the sanitary condition of Memphis: it has been characterized as the "filthiest city in the Union." There never was a greater mistake. To-day, in the midst of the epidemic, the work of general sanitation is going on. A large force of men and carts is kept constantly employed cleaning streets, alleys, and premises, and Memphis can justly boast of being the *cleanest* city in the Union.

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## MEDICO-LEGAL NOTES.

### DAMAGES FOR FRACTURE.

THE people of Franklin County, Mass., were entertained and their opinion on surgical questions appealed to last week in a suit for malpractice. A man fractured his forearm, which was treated by Dr. Stimson, of Orange. Dr. Stimson requested his friend Dr. Barton, also of Orange, to assist him in the first dressing. Dr. Barton did so, but made no charge against the patient, for it was done as a favor to Dr. Stimson, and not at request of patient. This patient wants the treatment reinforced by heavy damages, as he claimed he had not and could not use the arm much since the fracture, on account of pain and weakness. He maintained action against both doctors. The arm was examined at the trial, a year and a half after the fracture, by ten or twelve surgeons, who all found the bones quite as good in every respect as the average of such cases. They also gave the patient encouragement to expect complete recovery of soft parts in time by proper use. Among those testifying to that effect were Drs. C. B. Porter of Massachusetts General Hospital and Harvard Medical College, J. Bates of Worcester, Russell of Winchendon, Lynde and Oliver of Athol, Goddard of Orange, etc. One, an eclectic, said he detected crepitus about two months after the fracture, although there was partial union. Several doctors, not eclectic, who examined the arm about the same time, failed to detect non-union. All find bony union now. The prosecuting attorney blandly declared that the young man (eclectic) was not a member of the Massachusetts Medical Society, yet was able to find what they could not. He (attorney) alluded to the poor laboring man and rich doctor, an allusion which appeared in his opinion necessary to adjust the scales of justice.

The jury were understood to stand firm through the whole of five hours' deliberation, seven for defendant and five for plaintiff. We certainly regard the case as interesting in illustration of the judgment and expectations of some people in such matters, and how unconsciously surgeons assume a responsibility in professional courtesy. G.

GREENFIELD, August 18, 1879.

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## SHORT COMMUNICATIONS.

### PSEUDO-HYPERTROPHIC PARALYSIS.

MR. EDITOR,—I notice in this week's JOURNAL the report of a case by William Child, M. D., of Bath, N. H., of pseudo-hypertrophic paralysis. What is the pathology of the above-named disease?

Yours truly,

ENQUIRER.

ANDOVER, N. H., August 25, 1879.

## OBJECTIONS TO THE METRIC SYSTEM.

We have received a pamphlet containing remarks by Dr. J. F. Baldwin, addressed to the Ohio State Medical Society. They are published by the request of the society. We give a few extracts:—

The consequences, so far as the general public is concerned, may be summed up briefly as follows:—

(1.) The new units are not, in most respects, as convenient as our old ones, while the subdivisions are unnatural. We naturally divide into halves, quarters, etc., but never into tenths.

(2.) Our commercial relations with Great Britain, which are of paramount importance to us, will be seriously interfered with.

(3.) All our charts and chart-plates, which have been obtained at such an immense outlay, must be thrown aside, and all exchange of charts with England must at once cease.

(4.) A radical change must be made in the putting up of packages, which are now sold, ready packed, in pound or ounce, or yard or foot packages.

(5.) In manufacture, all our gauges, dies, lathes, screws, augers, chisels, machinery of every description, are made with the inch as the standard. All this must be changed, and at a cost of much money and confusion.

(6.) But it is in land measurements that the most dire confusion will manifest itself. We buy and sell land by the front foot in cities, by the acre in the country. All our deeds and mortgages must be overhauled, the measurement by chains, etc. rectified, and the contents, in the one case, obtained by dividing the number of acres by 2.47114+ (the hectare), and, in the other case, the frontage obtained by reducing our present measurements, in feet, to inches, and dividing by 39.37079+ (the metre). Instead of a lot with a frontage of sixty feet, there will be a frontage of 18.287669614 + metres; that "+" representing a column of figures extending, like Banquo's mirrored descendants, "to the crack o' doom," and furnishing ample ground for many a legal Shylock to hang a case upon. . . .

The principal trouble I have had has been in the feeling of uncertainty when prescribing liquids as to what would be the bulk of the resulting mixture. The familiar "*q. s. ad*—" of the old method sufficed to make the mixture equal a certain bulk; but the new system, at least as used in France and Germany, has no such convenient device. Not only does the difference in specific gravity lead to inaccuracy, but the various solids that are added also affect the bulk to a greater or less degree; so that it is impossible to predict, with anything like the degree of accuracy desired, the amount of medicine the patient will get.

This inaccuracy may be but a mere *bagatelle* to the visionary and transcendental Bostonian, but to myself it has always been a source of very uncomfortable solicitude, and I judge that I am not alone in this, since our friend Dr. X. C. Scott, of Cleveland, who I am sorry was called home suddenly last evening, told me in conversation yesterday that after using the metric system for three years, while pursuing his studies in Europe, he was glad to return to a country where he could use the more reliable methods of the old system.

One patient has been already killed by this system,—grams of laudanum being dispensed when centigrams had been prescribed; and a prominent Broadway (New York) drug store put in four powders six *decigrams* of morphia instead of six *centigrams*, as written,—making each powder contain two and a half grains instead of one fourth of a grain. Fortunately, the doctor discovered the mistake.

Two years ago I wrote: "The adoption of the metric system will give us 'confusion worse confounded.'" Was I, or was I not, correct?

## AMNIOTIC FLUID.

MR. EDITOR,—Noticing a case reported in your number for August 21st of the absence of the amniotic fluid, given by Dr. Pierce, of Freeport, Me., and having within the last week met with a similar case, I will give you the facts. Mrs. L. A. W., mother of eight children, was taken with labor pains on the 20th inst. I saw her in a few hours after, when the head could be plainly felt through the os, but there was no indication of the "bag of waters."

Labor went on as usual, except that I thought the first stage unduly prolonged; the pains were very severe. The os became fully dilated, and forcing pains succeeded. The membranes did not rupture till the head was well down, when I tore them with my nail, and in a short time a fine, plump female child was born. There was no appearance of any amniotic fluid. I could not discover that the passages were any moister after the rupture of the membranes than before. I never met with a parallel case. The patient stated that her previous labors were just the same, and that her attending physicians had in several instances spoken of the absence of water. In this case the placenta was extensively adherent to the fundus of the uterus, and had to be removed by the hand.

HILL, N. H., *August 25, 1879.*

D. E. WELLES, M. D.

#### FLUSHING OF SOIL-PIPES AND TRAPS.

MR. EDITOR,—Permit me to suggest through your pages that it is within the power of any householder to remedy, to a great extent, the evils attendant upon insufficient flushing of soil-pipes and traps, as described by Mr. Waring in his second article. If the pipes are slimy, a moderately strong solution of copperas or silicate of soda (both cheap materials) should be poured down them as a preliminary. Then raise all the water-closet valves and open all the faucets for the space of ten minutes. This plan practiced at regular intervals of two to five days, according to the season, will keep pipes and traps thoroughly washed out and free from objectionable deposits.

While it is difficult to provide for an adequate automatic flushing of pipes and traps, it is perfectly easy to secure it if a little intelligent care is exercised. It really requires no more thought or attention than the usual shutting off to guard against frost in winter.

Yours truly,

C. F. CREHORE.

*August 25, 1879.*

#### CHANGES IN THE MEDICAL CORPS OF THE NAVY FOR THE WEEK ENDING SEPTEMBER 5, 1879.

September 1st. Assistant Surgeon William R. DuBose detached from the Wabash and ordered to the Naval Hospital, New York.

September 1st. Assistant Surgeon S. H. Dickson detached from the Naval Hospital, Norfolk, and ordered to the Naval Hospital, New York.

September 1st. Assistant Surgeon C. W. Deane detached from the Naval Hospital, Chelsea, and ordered to the receiving ship Wabash, Boston, Mass.

September 1st. Assistant Surgeon B. F. Rogers detached from the St. Mary's and waiting orders.

September 1st. Medical Inspector A. L. Gihon promoted to medical director from August 20, 1879.

September 1st. Passed Assistant Surgeon B. S. Mackie promoted to surgeon from August 20, 1879.

September 3d. Surgeon J. W. Coles detached from medical examining board and waiting orders.

September 3d. The naval medical board for the examination of candidates for admission and promotion dissolved.

September 3d. Assistant Surgeon E. H. Marsteller detached from the Mayflower and waiting orders.

September 3d. Assistant Surgeon J. E. Gardner detached from the Standish and waiting orders.

September 3d. Surgeon B. S. Mackie detached from the St. Louis and waiting orders.

September 5th. Surgeon M. L. Ruth detached from the Constellation and ordered to the Naval Academy.

September 5th. Passed Assistant Surgeon Robert Whiting detached from the Constellation and waiting orders.

September 5th. Passed Assistant Surgeon William A. Corwin detached from the Naval Academy and waiting orders.

## REPORTED MORTALITY FOR THE WEEK ENDING AUGUST 30, 1879.

Cities.	Popu- lation estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from					
				The Prin- cipal "Zymo- tic" Diseases.	Diarrhoeal Diseases.	Diphtheria and Croup.	Pneumo- nia.	Typhoid Fever.	
New York.....	1,085,000	492	23.64	31.51	20.93	2.62	4.63	1.62	
Philadelphia.....	901,380	314	18.16	21.66	15.92	1.28	2.23	2.23	
Brooklyn.....	664,400	231	21.24	33.77	22.50	6.50	1.57	—	
Chicago.....	—	220	—	43.63	18.18	10.46	1.81	6.87	
St. Louis.....	—	125	—	28.80	18.40	8.20	0.80	2.40	
Baltimore.....	366,000	137	19.57	36.50	20.44	2.92	2.19	2.19	
Boston.....	360,000	136	19.69	40.44	28.73	5.15	5.15	2.94	
Cincinnati.....	280,000	75	—	22.66	14.66	2.66	5.33	—	
New Orleans.....	210,000	81	—	25.98	7.41	1.23	7.41	—	
District of Columbia.....	160,000	54	17.40	25.92	12.96	—	7.40	5.55	
Cleveland.....	175,000	66	19.67	37.88	21.23	9.09	—	3.03	
Pittsburgh.....	—	68	—	48.53	14.70	20.60	1.47	4.41	
Buffalo.....	—	—	—	—	—	—	—	—	
Milwaukee.....	—	44	—	47.71	31.70	14.60	2.43	2.43	
Providence.....	101,500	36	18.47	19.44	11.11	5.56	2.78	—	
New Haven.....	60,000	14	12.17	28.57	7.14	7.14	21.42	7.14	
Charleston.....	57,000	31	28.28	9.69	9.69	—	—	—	
Nashville.....	27,000	9	17.38	11.11	11.11	—	—	—	
Lowell.....	53,800	26	25.43	38.46	34.62	—	6.26	3.85	
Worcester.....	62,600	19	18.57	26.32	26.32	—	—	—	
Cambridge.....	50,000	14	14.00	35.71	35.71	—	—	—	
Fall River.....	48,600	24	25.30	37.50	37.50	4.17	—	—	
Lawrence.....	38,200	15	20.43	40.00	20.00	10.53	—	—	
Lynn.....	34,000	11	16.87	18.18	9.09	6.67	6.67	—	
Springfield.....	31,600	9	14.90	44.44	—	8.33	—	—	
New Bedford.....	27,000	9	17.38	44.44	44.44	—	4.00	—	
Salem.....	26,400	11	21.73	—	—	—	—	—	
Somerville.....	23,350	9	20.10	55.55	33.33	28.57	—	—	
Chelsea.....	20,800	8	20.05	25.00	—	12.50	—	—	
Taunton.....	20,200	5	12.91	40.00	40.00	—	—	—	
Holyoke.....	18,200	9	25.79	44.44	38.33	—	—	—	
Gloucester.....	17,100	4	12.20	50.00	—	—	—	25.00	
Newton.....	17,100	9	27.44	55.55	11.11	—	—	—	
Haverhill.....	16,800	8	27.26	12.50	12.50	10.00	10.00	—	
Newburyport.....	13,600	13	60.21	23.08	7.69	—	25.00	7.69	
Pittsfield.....	12,650	10	41.22	—	—	—	—	—	
Pittsburg.....	12,500	5	20.86	—	—	—	—	—	
Milford.....	9,800	1	5.32	—	—	—	—	—	

Two thousand three hundred and fifty-two deaths were reported, showing a decrease of 130 from the previous week : 759 from the principal "zymotic" diseases, 452 from diarrhoeal diseases, 301 from consumption, 117 from diphtheria and croup, 65 from pneumonia, 52 from typhoid fever, 49 from scarlet fever, 35 from malarial fevers, 28 from bronchitis, 28 from whooping-cough, 12 from cerebro-spinal meningitis, five from measles, four from yellow fever, four from erysipelas, one from small-pox (New York). *Scarlet fever*, New York 10, Chicago and Baltimore eight, Fall River five, Cincinnati four, Boston three, Philadelphia, St. Louis, and Pittsburgh two, Brooklyn, Cleveland, Providence, Springfield, and Gloucester one. *Malarial fevers*, New Orleans 10, New York nine, Chicago six, Baltimore four, St. Louis three, District of Columbia two, Pittsburgh one. *Whooping-cough*, Brooklyn seven, New York five, Philadelphia four, Baltimore, Boston, District of Columbia, and Cleveland two, Chicago, Pittsburgh, Milwaukee, and New Haven one. *Cerebro-spinal meningitis*, Chicago four, New York three, Baltimore, New Orleans, Pittsburgh, Fall River, and Springfield one. *Measles*, New York three, Brooklyn and St. Louis one. *Yellow fever*, New Orleans three, Philadelphia quarantine one. *Erysipelas*, Brooklyn two, Pittsburgh and Newburyport one. There was a marked decline for the week in diarrhoeal diseases, cerebro-spinal meningitis, and measles, and a great increase in diphtheria and croup continued. The other diseases remained without noteworthy change. In the twenty cities and large towns of Massachusetts, with an estimated population of 867,100, the only change was a decrease in diarrhoeal diseases.

The meteorological record for the week in Boston was as follows:—

Date.	Barom- eter.	Thermom- eter.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather. <sup>1</sup>			Rainfall.	
	Mean.	Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration.	Amount in Inches.
Aug. 24	29.715	74	85	65	71	59	85	72	Calm	SW	W	0	10	4	F	F	F	—	.07
" 25	29.813	62	75	60	81	68	88	79	Calm	SE	SE	0	8	2	F	F	F	—	.06
" 26	29.971	58	61	55	94	76	87	86	NE	NE	NE	22	22	12	O	F	O	—	.09
" 27	30.054	59	69	55	85	85	94	88	NE	NE	NE	13	12	6	O	F	O	—	—
" 28	30.097	58	70	53	87	77	87	84	N	E	NE	8	12	2	C	C	F	—	—
" 29	29.952	67	80	52	75	67	89	74	W	E	SW	5	2	5	C	F	F	—	.11
" 30	29.973	64	74	58	77	78	63	73	N	SE	W	10	8	10	C	F	F	—	—
Week.	29.939	63	85	52				79		NE		1493 miles.						13.5	.33

<sup>1</sup> O., cloudy; C., clear; F., fair; G., fog; H., hazy; S., smoky; R., rain; T., threatening.

Yellow fever continues unabated in Memphis, 163 cases and 53 deaths having been reported for the week ending September 6th, in addition to the 848 cases and 228 deaths previously returned. Five cases and a death were reported in New Orleans.

For the week ending August 9th, in 149 German cities and towns, with an estimated population of 7,577,100, the death-rate was 28.4 against 25.8 of the previous week. Four thousand one hundred and forty deaths were reported: diarrhœal diseases 829, consumption 433, acute diseases of the respiratory organs 258, diphtheria 84, whooping-cough 61, scarlet fever 54, typhoid fever 48, measles 40, puerperal fever 16, small-pox two. The death-rates ranged from 17.9 in Crefeld to 41.0 in Breslau; Dantzic 26.7; Munich 30.7; Dresden 28.5; Berlin 33.4; Leipsic 33.4; Hamburg 24.4; Hanover 19.4; Cologne 32.3. In the same week, Vienna 26.8; Paris 23.6; Brussels, 21.2.

For the week ending August 16th, in the 20 English cities and towns, with an estimated population of 7,383,999, the death-rate was 18.7 against 17.4 of the previous week. Two thousand six hundred and forty-seven deaths were reported: diarrhœa 210, lung diseases 181, scarlet fever 94, measles 80, whooping-cough 76, fever 45, diphtheria nine, small-pox four (London). The death-rates ranged from 8.4 in Plymouth to 21.8 in Manchester; London 19.4; Bristol 18.6; Birmingham 16.4; Liverpool 21.6. For the same week, Edinburgh 16, Glasgow 15, Dublin 28 (two deaths from small-pox), Geneva 11.1, Zurich 21.4.

ERRATUM.—In the title of the mortality report in our last issue, page 352, for August 16th read August 23d.

RHODE ISLAND MEDICAL SOCIETY.—The quarterly meeting of the society will be held in Lyceum Hall, 62 Westminster Street, Providence, Wednesday, September 17th, at ten A. M. Censors' meeting at 9.30 A. M. Papers will be presented by Drs. G. D. Hersey, A. G. Browning, and J. E. Tobey. Applicants for membership will send their applications and diplomas to the office of the secretary, 310 Benefit Street, Providence, previous to the day of meeting. Blank applications may be procured of the secretary.

W. E. ANTHONY, M. D., Secretary.

BOOKS AND PAMPHLETS RECEIVED.—Analysis of the Urine, with Special Reference to the Diseases of the Genito-Urinary Organs. By K. B. Hoffmann, Professor in the University of Gratz, and R. Uitzmann, Docent in the University of Vienna. Translated by T. Barton Brown, A. M., M. D., Resident Physician Maryland University Hospital, and H. Holbrook Curtis, Ph. B. New York: D. Appleton & Co. 1879.

How Infant Mortality may be Lessened. Suggestions by the State Board of Health of Wisconsin.

American Health Primers. Summer and its Diseases. By James C. Wilson, M. D., etc., etc. Philadelphia: Lindsay and Blakiston. 1879. (From A. Williams & Co.)